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IT was not to be expected that a work of the magnitude of the Pharmacopœia could be entirely free from errors. Many of the statements contained in it are based upon the work of independent investigators, and it would be practically impossible for the Committee of Revision to fully investigate the accuracy of every statement made. So with regard to the solubility of the resin of the root of *Podophyllum Peltatum*, which J. B. NAGELVOORT makes the subject of a communication in a recent number of the *American Journal of Pharmacy*, in which he agrees with BERINGER that the pharmacopœial figures for its solubility are in excess of the actual solubility, it can only be said that the official figures have been based upon erroneous data; and we should be grateful to Messrs. BERINGER and NAGELVOORT for directing attention to the error.

According to NAGELVOORT the average amount of matter soluble in boiling water is about 25 per cent. of the whole resin. This shows a marked difference from the pharmacopœial statement, which is to the effect that resin of podophyllum is soluble in 80 per cent. of boiling water.

According to our recollection the error originated with Professor MAISCH. It was continued in the National Dispensatory, but seems to have escaped the vigilance of the Committee of Revision.

VASELINE vs. PETROLATUM.

THE physicians of the country are being supplied with another of the famous circulars which the CHESEBROUGH MANUFACTURING COMPANY distribute annually. The circular of this year, like all the circulars sent out by the CHESEBROUGH COMPANY, is an attempt to discredit the petrolatum of the U. S. Pharmacopœia and to influence physicians against prescribing or using it. The fact that many physicians are careful to specify "Petrolatum" in writing prescriptions is taken advantage of by the writer of the circular to say that the physician in doing so "allows the druggist to substitute for a pure and good petroleum product, the poor, and in some cases noxious material, which is sold under the name of petrolatum." This fling at rival makes of petrolatum will not make much impression on physicians; it is simply a tiresome refrain of what the Company has been preaching with so little success for the past ten years.

The estimation in which the CHESEBROUGH COMPANY holds the pharmacist is revealed in their statement that the information concerning petrolatum, which is contained in the U. S. Pharmacopœia, is incorrect and that pharmacists have neither the knowledge nor the ability to carry out the pharmacopœial tests. Some of the well known makers of petrolatum will perhaps make answer to the charge that "much of the material sold as petrolatum is simply cut out from cylinder stock [Physicians all known what that is!] by oil refiners."

The circular goes on to state that "other makes [of petrolatum] are mixtures of distillates and wax, which are positively noxious and dangerous." The testimony of the CHESEBROUGH COMPANY alone will, however, scarcely be sufficient to convince physicians that the official ointment base is a substance unfit for medicinal use; they have been using it too long and successfully to be influenced against it by the unsupported testimony of a firm which is financially interested in a rival product. As to pharmacists, they are very weary of "vaseline," and the circulation of Col. CHESEBROUGH'S literary efforts only adds to the sense of weariness.

THE APPROACHING MEETING OF THE A. P. A.

SELDOM has the American Pharmaceutical Association selected a more charming location for its meetings than that chosen for the forty-second annual meeting, the first session of which will be held at the Battery Park Hotel, Asheville, N, C., September 3, 1894, at 10 A.M. The citizens of Asheville show a most commendable degree of interest in the approaching meeting and are making every effort to insure the meeting being a most brilliant success. A local committee have prepared and submitted to the council of the association an interesting programme which will no doubt be approved substantially by that body. At present the programme of entertainments may be outlined as follows, it being understood that this programme is tentative and subject to such modifications as circumstances may make necessary.

On Monday evening at 8.30 the citizens of Asheville will tender their visitors a reception and promenade at the Battery Park Hotel, and on Tuesday evening a literary and musical entertainment will be given in the hotel ball room. Wednesday afternoon will be devoted to a carriage drive to Vanderbilt's.

This is undoubtedly one of the most beautiful and picturesque drives in the United States. Leaving the Battery Park Hotel the visitor is driven down, into and through the city, by the Oakland Heights and Connally's, where magnificent views of the surrounding country are continually spreading before you, down and through the ford of the beautiful Swannanoa to the Vanderbilt estate.

Friday afternoon, September 7th, will be devoted to an excursion by special train to Hot Springs. Leaving Asheville, the train follows for 30 miles along the beautiful banks of the French Broad, between steep and precipitous hills, that finally shut off all view. As one looks ahead, he is at a loss to know where the river and railroad go to, but winding snake-like among the mountains, and sometimes almost doubling on themselves, river and railroad finally arrive safely at Hot Springs. Persons who have traveled have said that the ride along the French Broad River is unsurpassed in beauty by any similar river scenery in the world. At Hot Springs a lunch will be served, and several hours spent in viewing the hotel and grounds and the celebrated baths, which are famed the world over for their curative powers.

Returning to Asheville in the early evening the visitors will be in time for a late supper at their hotel.

Mr. WHITEFORD G. SMITH, the able local secretary, would like to have every one who contemplates attending answer the following questions:

1. What day and date will you arrive in Asheville?

2. How many rooms do you require at the Battery Park Hotel?

3. Do you prefer any other hotel or a private boarding house?

The details regarding transportation have not yet been arranged. Owing to the press of personal business, Mr. THOS. F. MAIN, the Chairman of the Committee on Transportation, has resigned and President PATCH has appointed in his stead CASWELL A. MAYO, 37 College place, New York City.

A private excursion is being organized in New England in which efforts will be; made to interest all the New England members, and through this means it is hoped that an unusual large attendance from that section will be insured. Further details will be published from time to time or can be obtained by addressing any of the members of the Committee of Transportation or the local secretary, WHITEFORD G. SMITH, Asheville, N. C.

THE NEXT BRITISH PHARMACOPŒIA.

PROFESSOR ATTFIELD has submitted to the General Medical Council his eighth annual report on the progress of pharmacy in relation to the future revision of the British Pharmacopœia. This report takes the form of a record of researches and suggestions bearing upon the articles of the Pharmacopœia. Comment is made on particular preparations or articles of the Materia Medica, but the subjects treated of belong, for the most part, to those which are of fundamental importance in the reconstruction of the official standard.

The extent to which manufacturing processes for official chemical substances should be retained in the Pharmacopœia is one of the fundamentals which receives attention, and the question as to whether or not the metric system of weights and measures might further be recognized, as well as the advisability of the official adoption of some one of the various tables of atomic weights are fully discussed.

In a former reference to Professor ATTFIELD'S sixth report (PHAR. RECORD, Vol. xxiii, 26) we explained very fully the plan pursued. The present report differs somewhat from the former, the references to details of pharmaceutical comment on particular preparations or articles of the Pharmacopœia as published during the year previous to its issue, being fewer in number, and, it appears to us, of less importance.

A page is given up to discussing the advisability of omitting *Acetum* from the list of official articles. *Acetum* has long been dismissed from the U. S. Pharmacopœia, and in the British Pharmacopœia it only finds employment in the preparation of a well nigh obsolete plaster, *Emplastrum Saponis Fuscum*, and here its function is the conversion of the oxide of lead into the acetate and the production of a brown color in the plaster mass. The process is criticised as one unworthy of modern pharmacy, and both vinegar and plaster, are deemed unworthy of retention.

Aconitine is given careful consideration, and Dr. ATTFIELD considers that in the next edition of the Pharmacopœia the alkaloid should be defined as crystalline. Commenting upon this the *Chemist and Druggist* hopes "that some further attention will be given to this matter before the suggestion is adopted."

An amended monograph on *Aqua destillata* is suggested for insertion in the next British Pharmacopœia. The suggestion is somewhat novel, providing for the use of potassium permanganate and an alkali in the still in order to destroy nitrites and insure the liberation of ammonia. To better illustrate the proposed change we reproduce the monograph below:

Aqua Destillata.
Distilled Water.
H_2O.

Take of water a convenient quantity; place it in a still having an efficient condenser; add to it enough solution of permanganate of potassium rendered strongly alkaline by caustic potash to communicate a permanent purple tint; distill, and reject the distillate so long as it affords a distinct reaction with the alkaline solution of potassio-mercuric iodide: then distill so long as the distillate gives no reaction with the following tests, and collect and preserve it in stoppered glass vessels free from lead.

Tests.—A fluid ounce evaporated in a clean glass capsule leaves not more than a scarcely visible residue. In quantities of two or three fluid ounces it is not affected by sulphureted hydrogen either alone or after the addition of ammonia, by oxalate of ammonium, nitrate of silver, chloride of barium, solution of lime, or by a mixture of starch mucilage and iodide of potassium slightly acidified by acetic acid. It should cease to be used when a quantity of two or three fluid ounces gives more than a faint yellow coloration with the solution of potassio-mercuric iodide.

Argentii nitras and *arsenii iodidum* are quoted as examples of substances for which no method of preparation is necessary in the Pharmacopœia. Dr. ATTFIELD is of the same opinion as the chairman of our own Committee of Revision with respect to the educational value of a pharmacopœia. Where the preparation of definite chemicals is concerned he is of opinion that the Pharmacopœia is no longer consulted for information regarding processes of manufacture and paragraphs of this description need no longer be retained in the Pharmacopœia.

The two official varieties of ether used respectively as a medicinal agent and for producing anæsthesia by inhalation take up a page and a half of the report. The purity of ether and the inadequacy of the British pharmacopœial characters and tests have been fruitful sources of controversy for some time back An interesting paper on the subject by A. C. ABRAHAMS, which appeared in the *Chemist and Druggist*, was reprinted in THE PHARMACEUTICAL RECORD of December 8, 1892, and it is extremely probable that the representations of this author, together with those of D. B. DOTT, who has also written on the subject, will result in raising the required specific gravity of *æther purus* from the present 0.720 to 0.724, the definitions and tests undergoing a corresponding change.

On the subject of weights and measures Dr. ATTFIELD adduces weighty reasons for the adoption of an alternative system of imperial and metric weights and measures as against the prevailing alternative "parts" system. The needs of Canadian pharmacists appear to be given due consideration, for he gives the following as a final reason for the adoption of the proposed alternative system.

It would seem, therefore, to be due to the Canadians that we should provide them in the next *British Pharmacopœia* with metric weights and measures side by side, or in close alternation, with the imperial weights and measures, in all the sections or monographs in which weights and measures are mentioned; in short, that we should provide them with alternative *metric* weights and measures in place of the present alternative *parts*, and generally make the alternation complete.

Dr. ATTFIELD then gives the following example of how the proposed extension of the metric weights and measures might be carried out:

[Present form.]

Collodium.

Collodion.

Take of
Pyroxylin, 1 ounce or 1 part.
Ether, 36 fluid ounces or 36 fluid parts.
Rectified spirit, 12 fluid ounces or 12 fluid parts.

If it were decided to displace the foregoing "parts" by weight and measure, by grammes and cubic centimeters, the following mode of doing this might be adopted:

[Suggested form.]

Take of

Pyroxylin, 1 ounce or 20 grammes.
Ether, 36 fluid ounces or 720 cubic centimeters.
Rectified spirit, 12 fluid ounces or 240 cubic centimeters.

The whole report is a remarkable example of what may be accomplished by observing orderly method in the collating of material of the kind which has been used in its preparation; it does not contain more then sixteen small pages, yet covers all the requirements of a report of its important character.

Written for the American Druggist and Pharmaceutical Record.

THE PRACTICAL USE OF THE METRIC SYSTEM.

By John E. Groff, Ph.G.,

R. I. Hospital, Providence, R. I.

It is difficult to sum up all the advantages coming from the use of a system in which the measures of length, capacity, gravity and expanse are all directly related to one another, and from any given one of which, all the others may be derived. Such advantages *do* exist, however, and are constantly making themselves manifest to those individuals using the system.

More difficult than the summing up of those advantages by those persons who know them, is the task of unlearning the *old* systems by those who would learn the new.

There is a large class who, for various reasons, know little or nothing of the metric system and its practical use. Many, calling themselves good, hard-headed business men, without disparaging the system in any way, will leave it alone until fairly driven into contact with it, *unless* they see money in it. They have neither the time nor the inclination for a thing that does not pay. In endeavoring to give a few hints concerning metric weights and measures and their practical use, it will be taken for granted that the reader has, or will, inform himself as to the origin of the unit of the system, and is at least aware of the existence of tables of weights and measures, and of the terms expressive of their multiples and subdivisions.

In the U. S. Pharmacopœia of 1890 we find that the terms gramme (abbreviated Gm.) and cubic centimeter (abbreviated Cc.) are the *only* terms used. Furthermore we find by reference to the tables that there are a number of terms beside those just mentioned, which are *not* used in the Pharmacopœia. Let us consider *why* so many terms are given and so few used. In our system of money we have mills, cents, dollars, eagles and double eagles. A stock broker makes or breaks fortunes on the rise or fall in value of one *mill* per bushel of wheat. But although he owes so much to a *mill* per bushel, he never speaks of a mill by name. He says the tenth of a cent. Similarly he never speaks of eagles or double eagles, but applies the name dollar and numbers them by tens, hundreds and thousands. Just as in our monetary system we commonly discard the use of the terms mill, eagle and double eagle as being unnecessary and burdensome, so with the terms of the metric system, we reserve just those which are necessary to express such quantities as we ordinarily handle, rejecting, as liable to confuse, all the others.

If we were coal dealers we should find kilogrammes useful. If milk dealers, liters would be our measures, but as dispensing pharmacists, grammes and cubic centimeters are all we need. Ordinarily a physician writes for drams of solids and drams of fluids. The solids are weighed, the fluids measured. The *sign* used in both instances is the same, viz., ʒ i. So also in the metric system, the cubic centimeter being the fluid measure of one gramme by *weight* of water, the same decimally written figure stands for either, as the case may be. Thus, by quinine—1. and water—1. we are to understand that one gramme of quinine is to be *weighed* and one cubic centimeter of water is to be *measured*. Grammes, then, and cubic centimeters are represented by the same figures. A. B. Taylor of Philadelphia, in Oldberg's unofficial Pharmacopœia, suggested long ago, as a great help, the use of the terms grammes and *fluid* grammes, the same as we say *drachms* and *fluid* drachms.

In the fractional parts of grammes and cubic centimeters we also throw out as many terms as possible. We say milligrammes or milli-cubic centimeters.

In writing a prescription on the plan adopted in this country, of *weighing* solids and *measuring* fluids, abbreviations of the terms become unnecessary.

Morphine sulphate..... 1
Water.....30

M. ft. sol. Dose, 5 M.

Here we understand one gramme of morphine sulphate is to be *weighed* and thirty *fluid* grammes or cubic centimeters of water are to be *measured*. It is as easy, surely, to weigh one gramme as it is to reduce it to grains and weigh them, and it is as easy to measure thirty fluid grammes or cubic centimeters as it is to reduce them to fluid drams and measure them, for the adoption of the system as the official standard should be followed by all those calling themselves good pharmacists, supplying themselves with weights and measuring glasses to correspond. As soon as he has done this one great stumbling block has been removed, and he has no more *reducing* to do. There are two other difficulties. One is the trouble in learning to *think* in the new system: this is overcome by practice. The other is one which is likely to present itself to us for a long time to come, if not always, and that is that the common people who *take* the medicines will be directed to take them by drops, by teaspoonfuls, by tablespoonfuls, etc., etc. By *thinking* in the new system I mean that ability to tell by experience, how much we want. We say we want an ounce, or a pound or a pint of anything, because we are familiar with the bulk represented by those names. So in dosing, we understand that one grain is a certain small quantity and that $\frac{1}{100}$ of a grain is a *very* small quantity, but when we are asked for a dose of one hundred and twenty milligrammes of quinine in thirty cubic-centimeters of whiskey, the figures have a dangerously big sound to the ear, for we are unfamiliar with them. There are two good ways to overcome this first difficulty. We *must* learn by heart a few comparative figures and then we must make use of some price list printed in the new system. Those of Squibb and Merck perhaps, one containing a price list at so much per Kilo, etc., and the other giving the doses in both systems, are two as good as can at present be obtained. I have found the following table of figures very helpful:

.065 (sixty-five milligrames)	= 1 grain, about
.065 (sixty-five milli-cubic centimeters)	= 1 minim, about
1. (one gramme)	= 15 grains, about
1. (one fluid gramme or one cubic centimeter)	= 15 minims, about
4. (four grammes) (of 15 grains each)	= ʒ i, about
4. (four fluid grammes or 4 cubic centimeters of 15 minims each)	= f ʒ i, about
30. (thirty grammes) of 15 grains each	= ℥ i, about
30. (30 fluid grammes or 30 cubic centimeters of 15 m. each)	= f ℥ i, about
500. (500 grammes of 15 grains each)	= 1 lb. Avoir., about
500. (500 fluid grammes or 500 cubic centimeters of 15 m. each)	= 1 pint, about
1000. (1000 grammes or 1 kilogramme)	= 2 lbs. Avoir. about
1000. (1000 fluid grammes or cubic centimeters or one liter)	= 2 pints, about

It will be noticed that the figures are not exact equivalents, nor is it necessary. That is not the object. When that great pioneer in good pharmacy, Dr. E. R. Squibb labels some of his preparations as containing *about* so and so, there is no inaccuracy implied. It is an honest acknowledgment that the nearest *practical* approach to perfection has been made. So with these equivalent figures, they are sufficiently near for all practical purposes. As an illustration I take the following figures from two works in wide circulation and of recognized authority.* One gives approximate and the other accurate figures. One says morphine sulphate may be given in doses of one-eighth to one-fourth of a grain or .008 to .016 (eight to sixteen milligrammes). The other says from one-twelfth to one-half grain or .0054 to .0324 (five and four-tenths to thirty-two and four-tenths milligrammes). This latter would be something like saying from one-twelfth and four-tenths of a twelfth to one-half and four-tenths of a half grain for a dose.

See, too, how easy the fractional parts of a grain become:

1 grain	being the same as	.065	(65	millig'ms)
¼ "	is ½ of .065 which is	.016	(16	")
⅛ "	" 1/8 " " " "	.008	(8	")
1/16 "	" ¼ " " " "	.004	(4	")
1/32 "	" 1/32 " " " "	.002	(2	")
1/64 "	" 1/64 " " " "	.001	(1	")

So ½ of a grain would be .020 (20 milligrammes)
" ⅛ " " " " " .012 (12 "

.001 (one milligramme) is the smallest metric weight which has a name. It is equivalent to $\frac{1}{64}$ of a grain and is as small a quantity as we ordinarily use. Occasionally, however, we do run across substances given in smaller doses than that even. In such cases we speak of them as fractional parts of a milligramme, and write them decimally, leaving the decimal point to be understood.

For instance, atropia is dosed at .0006 to .0012—which we read $\frac{6}{10}$ to 1 and $\frac{2}{10}$ milligrammes. $\frac{6}{10}$ of a milligramme is $\frac{1}{10}$ of $\frac{1}{64}$ of a grain or $\frac{1}{640}$ or $\frac{1}{8}\frac{1}{0}$ of a grain.

Duboisine is given in doses of from .0002 to .0004—two-tenths to $\frac{4}{10}$ of a milligramme. Two-tenths of a milligramme is $\frac{2}{10}$ or $\frac{1}{5}$ of $\frac{1}{64}$, or $\frac{1}{320}$. Four-tenths twice that much, etc.

Remembering by a not *very* great effort the above approximate figures; frequently consulting some price list printed in the metric system; granted a desire to be up to date on all the requirements which go to make up a ready pharmacist, and I know from experience that it will take but a short time for anyone to become practically familiar with the seeming puzzles of this system of weights and measures. I append several examples. The first one showing the necessity of being able to reduce from one system to the other owing to the dosing by teaspoonfuls:

Quinine sulphate.....	4.	= 60 grains
Strychnine sulphate.....	.030	= ½ grain
Diluted sulphuric acid	4.	= 60 ℥
Distilled water to make	120.	= 30 fl. ʒ

Dose: teaspoonful = fl. drachm.

Just as in adding up figures in a ledger we use lines in place of decimal points to insure a regular column, so in writing the metric figures lines are preferable to dots.

The equivalents are given at the right.

In reading the prescription we say 4 grammes of quinine sulphate, 30 milligrammes of strychnine sulphate, 4 fluid grammes or cubic centimeters of diluted sulphuric acid and 120 fluid grammes or cubic centimeters of distilled water.

The dose is 1 fluid drachm, which is 4 cubic centimeters. There are as many

* Remington's Pharmacy and Pharmaceutical Era Key to U. S. P.

doses in the whole mixture as 4 cc. are contained in 120 cc., which are 30 doses. Then $\frac{1}{30}$ of 4 grammes of quinine is $\frac{1}{30}$ of its equivalent, 60 grains or 2 grains $\frac{1}{30}$ of 30 milligrammes of strychnia is 1 milligramme, which is about $\frac{1}{74}$ of a grain. The prescription is a safe one.

As an illustration of the uncertainty in the mind of a person not thoroughly familiar with the system, caused by the great difference in the figures standing for the same quantities, take the formula for opium pills:

Powdered opium.....6.5 = 100 gr.
Soap.....2. = 30 gr.

Make 100 pills.

Here is an opportunity to show one of the reasons for discarding the use of the *terms* deci and centi, in figuring. To obtain $\frac{1}{100}$ of 6.5 is easy enough, but to read 6.5 as six grammes and 5 deci-grammes or as 6 grammes and one-half and then obtain $\frac{1}{100}$ of it, mentally, is not so simple. But we read it sixty-five hundred millegrammes and $\frac{1}{100}$ of that number is sixty-five millegrammes .065, or one grain to each pill. But the figure .065, is very different from the figure 1 grain and at first it is difficult to believe both are the same.

After all it comes to this: A careful reading of the subject as given in any of our standard books, a continual endeavor to *think* in the system, daily practice with the pencil, and in conversation with fellow clerks about the store, are the ways leading to familiarity with the subject.

Written for the American Druggist and Pharmaceutical Record.

WHAT I KNOW ABOUT VASELINE.

By Luther F. Stevens, Ph. G.,

Chairman of Committee on Revision of Pharmacopœia and Unofficial Formula, Brooklyn College of Pharmacy.

We have a wondrous love for the vaseline people, for which the salient reasons can readily be given in silhouette.

Their product had become known, its uses and disuses determined, the period of heaviest expense (the introduction era), gone by, and Americans were taking it up after our usual hearty fashion over a good thing, with vim and abundance, when the Chesebrough Company commenced those peculiar but nowadays familiar business tactics often undertaken in other lines by those in whom success begets undue head enlargement.

In an endeavor to coax the drug trade to heavier purchases, offers were made with alacrity to sell us in bulk lots of 50 lbs. and upward to any extent desired, with distinct promises that we were at liberty to bottle and attach local labels, name and address; this was well and the commodity was correspondingly pushed, without attempt by any one to supersede or intercept an arrangement equally advantageous to both manufacturer and final distributor, and matters so went on for two or three years. Then something occurred which *did not originate from the retail end.*

The quality of these bulk lots of 50 pounds seemed to vary, while *"perfected packages," from ounce to pound, were carefully kept at the original standard,* and all complaints from the trade and desires for rectification fell upon ears as dull as are those of the present Finance Committee of the Senate at Washington.

Shortly following upon this move came another, orders being issued that no dealer should longer use the word vaseline over his own name; the owners would sell us their material in tons, and accept the requisite cash, but we were not allowed to again sell it. Threats of lawsuits flew about the air of these two cities as thick then as now, some ten or twelve years later.

A few months thereafter their selling agents offered to department stores upon "perfected packages" a line of discounts less than given to the wholesale druggists, and at which none else could purchase.

Owing largely to this continual succession of peculiar scheming, and to the claim made and held to under technicalities of law by the makers, that their product being a copyrighted nostrum was subject to their own varying dictation as to composition, use, and price, a material similar to this and obtainable in open market was made an official article in the materia medica of the Pharmacopœia printed late in the fall of 1883, as our scientists did not consider that any firm or consolidation could exactly own the whole of the methane series.

Considering all that has so far been related, could any business man be censured for pushing in every way possible the official substance?

Then commenced and has continued in various ways up to the present day a virulent assault upon this addition to the pharmacopœia list of medicinal articles, in which misleading statements were circulated far and wide.

One with variations which has been printed during the last year in nearly every trade paper and magazine throughout the country and a similar fitted to the necessity, sent as a circular to nearly every physician in the United States, will show the animus, for the active principle of all these prints when extracted reads more or less as follows:

"Petrolatum is not vaseline, and the formula given in the pharmacopœia will not make vaseline." "Petrolatum has come to mean a worthless and often noxious petroleum product varying in quality from axle grease up." "Vaseline is not only useful as a vehicle (as many physicians think), but it has extraordinary value as a remedy both externally and internally which petrolatum has not."

Connected with the circular sent to medical men are also many ridiculous and groundless insinuations directed at the makers of our medical standard and also at the retail druggist, which would seem an absurd method of making customers in the trade, except that it chimes in exactly with the whole line of action taken in connection with the retail trade.

As to the first direct charge, any one who reads the Pharmacopœia of 1880, or of 1890, will very plainly see that *no formula at all is given*, nor any pretense of one. Only melting points and other tests are given for an article found best for general needs in that line by competent and reliable gentlemen selected for the purpose by physicians and pharmacists in convention assembled, and representing the medical and pharmaceutical schools and societies of this land.

Regarding the second charge, please accept a little of history upon the matter. Upon the appearance of the new officinal our great and good friends began to send accredited agents to every retail dealer giving bids upon petrolatum somewhat below the ruling price, claiming that although their make was, better than could be possibly made by any one else, yet their great facilities enabled them to market it cheaper. *Now consider a fine point* in connection with their quoted statement number two.

The whole trade was thus stocked with petrolatum *so called*, but what stuff! Apparently it had been prepared to discredit the use of a healthy and active rival. The final result being of course that we sought other brands which could be depended upon.

Number three claims a value to their particular refined article for internal use, and alleges damage connected with all others. This at least remains to be proven, as whatever such value is inherent is generally stated to be more particularly attached to the natural crude substance.

During all the time referred to some complained that the material called vaseline, and put out as the only original Jacob, had ceased to be identical with the original material. However, a still worse was soon let loose upon a long suffering community, having a pre-annexed title of "Blue Seal," and with this came a direct and deliberate bid to the cutters; the retailing price was paraded as 10 cents, but the discount given on quantities was so large that five cents would yield a percentage of profit, while the small dealer could not touch it. Finding that, notwithstanding an immense expense of advertising, this did not take very well, being but little heavier than a good cylinder oil, and that we were not brought to our knees, a still further "rub in" was devised. Our trade was offered upon the whole line of regular goods made by them, a discount sufficient to enable the small dealer a chance for competition with the bigger stores, and many bought heavily.

Just as soon, however, as this was done there appeared from Maine to Georgia in every horse car and elevated station and all the popular magazines, in fact in every place where eye could see, notices of a retail cut in price of over 50 per cent., and directly all of the cutting establishments of every kind were supplied at a new rate, and this but two or three years ago. It is quite easy to see why we so much love the vaseline people.

Written for the American Druggist and Pharmaceutical Record.

COLORED FIRES.

By "Pyro."

The Fourth of July is heralded sometime in advance by numerous demands for pyrotechnics for producing the illumination and noise which seems to be the necessary concomitant of the "glorious" day.

A few hints regarding the composition of the different colored fires and illuminating combinations will be appreciated at this time. The ingredients mentioned in the formulas given below should be dried separately and the powders mixed with a wooden spatula on heavy paper.

BRILLIANT STARS.

Potass. nitrate	52 parts
Sulphur	13 parts
Black antimony	13 parts

Make this into a stiff paste with a solution:

Isinglass	2 parts
Vinegar	8 parts
Alcohol	13 parts

Form into small pieces, and while stil moist roll in meal gunpowder.

GOLDEN RAIN.

1. Potass. nitrate	16 parts
Gunpowder	16 parts
Sulphur	10 parts
Charcoal	4 parts
Lampblack	2 parts

Mix and fill paper tubes.

2. Potass. nitrate	16 parts
Sulphur	8 parts
Gunpowder	8 parts
Charcoal	2 parts
Lampblack	2 parts

RED FIRE.

Strontium nitrate	8 oz.
Potass. chlorate	2 oz.
Shellac (coarse)	2 oz.
Strontium nitrate	10 oz.
Potass. chlorate	1 oz.
Charcoal	1 oz.
Sulphur (washed)	1 oz.

ROSE FIRE.

Potass. nitrate	8 oz.
Corn meal	2 oz.
Charcoal	½ oz.

CRIMSON FIRE.

Potass. chlorate	1 oz.
Strontium nitrate	6½ oz.
Charcoal	½ oz.
Shellac (coarse)	2 oz.

GREEN FIRE.

Barium nitrate	6 oz.
Potass. chlorate	1 oz.
Shellac (coarse)	2 oz.
Barium nitrate	4 oz.
Milk sugar	4 oz.
Potass. chlorate	8 oz.
Barium nitrate	8 oz.
Potass. chlorate	4 oz.
Sulphur (washed)	1 oz.
Antimony sulphide	½ oz.
Charcoal	¼ oz.

YELLOW FIRE.

Sodium nitrate	8 oz.
Shellac (coarse)	1 oz.
Charcoal	1 oz.

BLUE FIRE.

Potass. nitrate	8 oz.
Antimony sulphide	4 oz.
Zinc (metallic)	2 oz.
Potass. chlorate	3 oz.
Potass. nitrate	4 oz.
Sulphur (washed)	1 oz.
Copper oxide	1 oz.
Potass. chlorate	6 oz.
Alum (exsiccated)	3 oz.
Shellac (coarse)	2 oz.
Sulphur (washed)	1 oz.

WHITE FIRE.

Potass. nitrate	8 oz.
Charcoal	2½ oz.
Shellac (coarse)	2 oz.
Potass. chlorate	6 oz.
Potass. nitrate	2 oz.
Stearic acid	½ oz.
Milk sugar	2 oz.
Barium carbonate	½ oz.
Potass. nitrate	6 oz.
Antimony sulphide	2 oz.
Shellac	2 oz.
Sulphur (washed)	1 oz.

LILAC FIRE.

Potass. chlorate	6 oz.
Shellac (coarse)	3 oz.
Chalk	3 oz.
Black oxide of copper	1 oz.

VIOLET FIRE.

Potass. nitrate	3 oz.
Potass chlorate	3 oz.
Shellac	2 oz.
Chalk	2 oz.
Charcoal	¼ oz.

Pharmaceutical Progress.

Cassia Siberiana, D. C., is used as a diuretic in West Africa, where it is called "Guamgua."

Duration of Protection by Vaccination.—Dr. Biedert gives 7 years as the average duration of protection, though in some cases it extends much longer.

Seeger's Hair Dye consists, according to Hofman (*Maanblad tigen de Kwaksalverij*), of a solution of 1 per cent. of pyrogallol and 1 per cent. of copper chloride, and should be characterized as dangerous.

Anona Senegalensis, Pers., which is called "diorgud" in Guinea, is mentioned by J. H. Ozanne (*Kew Bull.*) as being used as an infusion in diarrhœa and perius in the stomach. The natives also use the petals as a condiment in food.

Sphæranthus hirsutus, Willd., is believed by the natives of West Africa, where it is very plentiful, to act as an anodyne and narcotic when laid in the beds of the sick.—J. H. Ozanne, *Kew Bulletin.*

Estimation of Albumen.—According to comparative experiments of Alide Grutterink (*Nederland Tijdschrift voor Pharm.*, March, 1894), the Esbach method for estimation of albumen in urine is not sufficiently reliable to be depended on quantitatively.

A Natural Toothache Gum.—The natives of West Africa use the gum from an undetermined species of *combretum* as a remedy for toothache. A decoction of the root of the same tree, which is known to the natives as "Topp," is used as a remedy in gastralgia.

Odol is the name of a proprietary dentifrice that has formed the subject of considerable comment in Europe of late. According to the investigations of Van Huerch (*Journal de Pharmacie D'Anvers*) it contains 4 or 5 per cent. of oily neutral body, saccharine, peppermint oil, and fennel oil.

Valuation of Iodoform.—Vulpius has found (*Pharm. Centralhalle*) commercial iodoform powder containing 13 per cent. of water. He therefore recommends the introduction of a test for moisture into the Pharmacopœia which would allow a loss of only one per cent. by weight in drying over sulphuric acid. This, he thinks, would be of much more practical value as a pharmaceutical test than either the volumetric or gravimetric analysis.

The Importation of Civet.—Speaking of the importation of civet into the United States, a recent writer says it is imported into this country in the horn of the rhinoceros. It comes down to the coast of India in these curious receptacles, and is protected from harm by a membrane placed over the open end of the horn. Its crude perfume is thus brought undisturbed to this port. Each horn contains from eighteen to twenty-four ounces, and is worth almost as many dollars.

Estimation of Carbon Dioxide in Presence of a Soluble Sulphide.—Wolkowicz (*Zeits. f. Aug Chem.*, 894,165) proposes the following method of estimating carbon dioxide in the presence of a soluble sulphide. After fitting up the Friesenius apparatus in the usual manner an excess of a 20 per cent. solution of copper chloride is added to the substance to be examined which is placed in the generating flask. The sulphide contained in the substance under examination then forms a sulphide of copper which is completely insoluble in hydrochloric acid, and the carbon dioxide is then driven off and absorbed in soda and lime tubes and weighed in the customary manner.

A New Systematic Botany of North America is announced under the editorship of George F. Atkinson, Cornell University, Ithaca, N. Y.; Nathaniel L. Britton, Columbia College, New York City; John M. Coulter, Lake Forest University, Lake Forrest, Ill.; Frederick V. Coville, U. S. Department of Agriculture, Washington, D. C.; Edward L. Greene, University of California, Berkeley, Cal.; Byron D. Halsted, Rutgers College, New Brunswick, N. J.; Arthur Hollick, Columbia College, New York City, and Lucien M. Underwood, De Pauw University, Greencastle, Ind.

Each monographer will be responsible for his own matter, the only restrictions placed on contributors being that they conform to a general style, to principles of nomenclature and to citations, and that descriptions be extended only to an average limit of a certain number of words, this number to be hereafter determined. The treatment of these matters will be indicated by sample sheets which will be distributed at an early date. It is expected that an approximately uniform consideration of species can be secured.

The editors believe it will be possible to produce a complete systematic botany of the country within fifteen years. They fully realize the impracticability of such a task being accomplished by a few students only, and earnestly desire the aid and support of all American botanists. —*Bulletin of the Torrey Botanical Club.*

Test for Olive Oil.—Herr Franz Musset suggests a curious test for olive oil (*Phar. Central*). In a ½-ounce test-tube or phial put 2 drachms of the sample and introduce about 1½ grain of dried phosphorus. Cork up the phial, and dissolve the phosphorus in the oil by means of the heat of a water bath. Allow to cool, stop up the phial with a plug of cotton-wool and set aside for twenty-four hours in a place where the oil will not freeze. If the oil is pure, at the end of twenty-four hours it will show whitish opaque streaks, which at the end of forty-eight hours settle round the sides and bottom of the vessel to form a quite clear ring of a yellowish-brown color. If the oil contains 10 per cent. of sesame oil the streaks formed at the end of twenty-four hours are still white; but it is not difficult with careful inspection to notice some yellowish ones among them, and at the end of forty-eight hours the stripes are all yellow. The greater percentage of sesame oil there is present the sooner does the characteristic yellow color appear, and very large percentages—*e.g.*, 50—give a perfectly brown ring in a day or two. Moreover, if to the mixture a single drop of tar be added and allowed to fall to the bottom, then ½ drachm of solution of ammonia is mixed with it, the pure oil is not changed in color, while that adulterated with sesame becomes brown in the course of twenty-four hours. Commenting upon the above we have not tried the test, but it seems one which should be useful.

High Temperature Thermometer.—Messrs. Baly and Chorley have devised a high temperature thermometer the novelty of which consists in the replacement of mercury by the singular liquid alloy of potassium and sodium. The boiling point of this alloy lies somewhere in the neighborhood of 700°, and its solidifying point is −8°, so that between these limits the liquid is particularly suitable for thermometric use. In order not inconveniently to lengthen the thermometer, the graduations are caused to commence at 200°, the bore for this purpose being widened just above the bulb. The space above the alloy is filled with pure nitrogen at such a pressure that when the glass begins to glow, and, therefore, soften, the interior pressure shall be equal to the atmospheric, and thus any tendency to alteration of volume avoided. The alloy exerts a slight action upon the glass at a red heat, causing a browning, but after the first heating during the preparation of the instrument the action ceases, the stained interior surface resisting further action. It is only necessary to heat the bulb and a small portion of the stem, for the coefficient of expansion of the alloy increases with the temperature in such a manner as to compensate for the error due

to the portion not heated. The graduations are thus equidistant, and various points in them are determined by immersion of the lower portion of the instrument in the vapor of high boiling substances whose temperatures of ebullition have been well ascertained.

Distillation of Sandal-wood Oil in India.—The distillation of sandal-wood oil in India is effected by the wet process in temporary sheds erected in or near the forest. The still used is the ordinary native one, consisting of three pots—viz., two large ones, doing duty respectively as boiler and condenser, and a third, a small copper one, which is inverted into the mouth of the boiler and is practically the cap of the still. This is fitted with a copper or bamboo tube about 4 feet long and having a bore of about 1 inch, which carries down the vapor into the condenser. The boiler, which may be of metal or ordinary earthenware, holds about 56 lbs. of sandal-wood chips with about 6 gallons of water. On one side of the boiler is a small opening which can be stopped and through which fresh water can be added as the water inside evaporates. The condenser is made of copper and has a capacity of about 3 gallons. Its mouth is stopped with leaves and coarse grass, and it is suspended on a forked piece of wood by its contracted neck inside a wide earthen ware trough filled with cold water, which is constantly renewed. Several such stills, usually twelve, are fixed in a row over a common furnace made of mud or unburnt bricks, and fed from the back under each boiler. The wood is shred into fine chips with a small, sharp adze. As the condenser fills gradually with water and oil, the latter is skimmed off (twice or thrice in the twenty-four hours) and emptied into a cistern or narrow tank kept in a corner of the shed. Only a small quantity of oil is obtained at each skimming. The fires burn night and day, and a single charge of wood takes about twenty one days to part with all its oil. The working season lasts ten months, during which, however, owing to constant holidays and slackness on the part of the men, the boilers are charged only about nine times. The wood of the root contains the largest quantity of oil, and is said by the natives to yield, according to its quality, from 11 to 4 per cent. of its weight of oil, although European distillers have never been able to get more than 2 per cent. The sap-wood is too poor in oil to be of any use.

Alkaloidal Color Tests.

Udransky has proposed a series of tests depending upon the use of a solution of 5 drops of furfurol in 10 cc. of concentrated sulphuric acid. A small piece of the alkaloid rubbed with 2 or 3 drops of this mixture in a porcelain basin with a glass rod produces the following colors:

Atropine.—Brown, but not characteristic.

Aconitine, brucine, and colchicine.—The glass rod is seen to turn brownish, but the reaction is not characteristic.

Strychnine gives a dirty brown color, and on warming dark green. On adding a few drops of water a dirty blue, passing to violet, is obtained

Morphine and codeine give a reddish-brown color, becoming violet red on warming. The color of the mixture disappears quickly.

Veratrine gives a reaction passing from yellow through olive green to blue, changing later to sap green and blue.

Sabadilline gives the same colors as veratrine, only they are slightly purer.

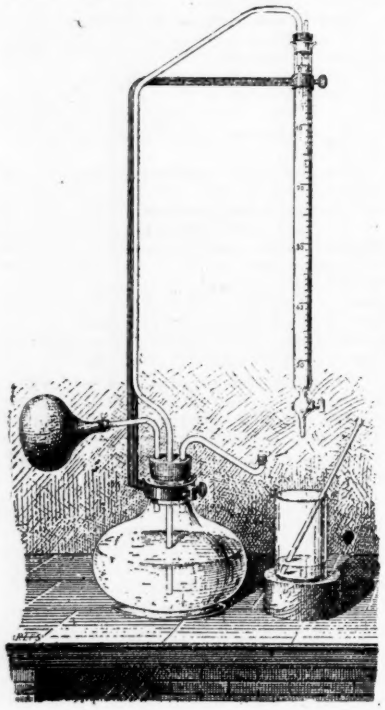
Papaverine gives a brownish color, passing to dirty violet.

Quinine forms a dark brownish-green mixture which becomes green, then brown on warming. On standing the color goes back to green.

Coniine and nicotine give brownish colors, which are not characteristic

Automatic Burette.

M. Guichard describes an automatic burette, which is illustrated herewith, substantially as follows: (*Rep de Pharm.*, May 10, 1894, p. 204). The flask containing the titrating liquid is closed by a rubber stopper through which pass three glass tubes. One of these tubes opens into a rubber bulb which, when compressed, forces the liquid over into the graduated burette, filling it up to the zero mark, the excess



of liquid returning to the flash when the pressure on the bulb is relaxed. The burette is then ready for the operation.

When the titration is completed the third tube is brought under the burette and connected with it, the stopcock is opened and the liquid flows back into the flash for future use.

The burette is provided with graduations in cc. and also in the hydrometric scale.

American Colocynth.

Chas. B. Allaire, Ph.G., who is connected with the canaigre works at Deming, New Mexico, has grown there some fine specimens of colocynth from Trieste seed furnished by Dr. E. R. Squibb. Seven of them were submitted to Prof. L. E. Sayre of the University of Kansas from whose description and examination of them (*Am. Jour. Pharm.*) we take the following:

The green fruit had the following circumference measurements (the first figures representing vertical and the second horizontal measurements):

(1) 13 x 13½ in.; (2) 23½ x 24; (3) 22¼ x 22½; (4) 18 x 19; (5) 20¼ x 20½; (6) 18¾ x 18½; (7) 20 x 21¼.

The exterior had a marbled green surface. The interior exhibited a rind about ½ inch thick, inclosing a white spongy pulp, imbedded in which were numerous seeds. A section parallel to the axis showed vertical rows of seeds upon fleshy parietal placentæ, which, on transverse section, were seen to project to the center of the fruit, then divide and turn back, making convoluting branches directed one toward the other. This structure made apparent three distinct wedges, each of which seemed to have two divisions bearing the dark brown, almost black, seeds. Here and there were found white, perhaps unripe, seeds. The fruit gave forth an odor not unlike that of cucumber, also suggesting that of watermelon.

The principal differences between the gross characters of this fruit and the imported article is that of size, and a correspondingly larger number of seeds which are larger in proportion and darker than those of foreign grown colocynth. In the imported fruit there are usually from 200 to 300 seeds, while the average number in the American is from 500 to 600. Physiological experiments upon the powder seemed to indicate that the American colocynth was only about two-thirds as powerful in cathartic action as that of the Trieste fruits.

The powder from the dried pulp was light in color, resembling the powder from the Indian fruit, and like the latter very bitter; the dust arising from it irritating to the eyes and nostrils, but differing considerably from the other in density, being much more compact and less fluffy.

Attempts to dry the whole fruit proved futile on account of the development of mold.

In the following summary of comparative analyses made by Prof. Sayre, the percentages are calculated from oven-dried powder:

Extracts and Constituents.	Imported.	American.
(I) Ether-chloroform extract	3.21	4.62
(a) Fat. (Petroleum-ether extract from I)	1.11	.521
(b) Resin from I, soluble in alcohol and precipitated by water	.64	.48
(II) Alcoholic extract (of dregs from I)	16.61	23.23
Principles acting as reducing sugar in II	2.15	10.31
(III) Aqueous extract	31.07	24.69
Gum (precipitated from III)	9.36	12.61
(IV) Amyloid principles (in dregs of III)	2.07	2.34
(V) Cellulose	13.5	14.76
(VI) Albuminous (protein) compounds	14.31	14.69
(VII) Ash	9.76	6.01
(VIII) Moisture (in air-dry powder)*	6.8	7.9
Diluted alcoholic (official) extract	32.68	38 87

Mr. Allaire stated that some watermelons were growing some distance away from the colocynth, and Prof. Sayre says that from the crude analysis made he is of the opinion that the watermelons must have had some slight influence upon the colocynth.

A New Element.

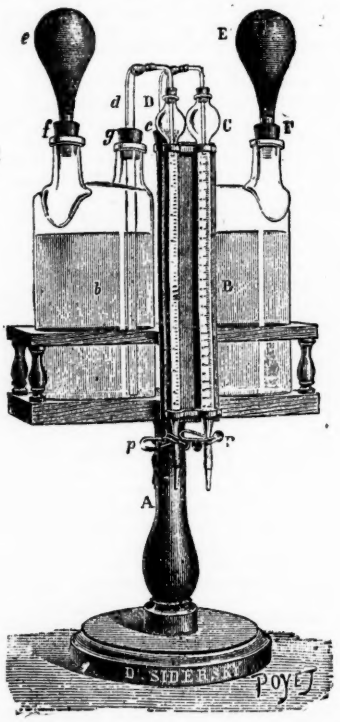
The *Chemist and Druggist* reports the claim of K. J. Bayer to the discovery of a new element in French bauxite. Mr. Bayer says that the acid of the metal is a yellowish-brown infusible body, which dissolves in water to form an intense gold yellow solution, and on neutralizing with ammonia the color is changed to olive green. The neutral solution gives the following precipitates: With barium

*What is meant here by air-dry powder, with reference to American colocynth, is a powder dried at as low temperature as possible—not dried to constant weight. It may be said that the fresh pulp, deprived of seeds, contained about 92 per cent. of moisture.

chloride, greenish yellow; mercurous salts, bright straw color; silver nitrate, greenish; magnesia mixture, greenish crystalline precipitate, becoming yellow in acids; molybdic solutions, white on warming; sulphureted hydrogen in alkaline solutions red color, in acid a brown oxysulphur salt of the metal, with precipitate of sulphur in violet solution. Potassium ferrocyanide, a very delicate reagent for vanadium and molybdenum, gives neither precipitate nor color. These interesting reactions seem to point to a compound of two heavy metals rather than a new element.

A Double Burette for Volumetric Analyses.

The accompanying figure illustrates an apparatus designed to facilitate work in volumetric analysis where two titrating liquids have to be used, as, for instance, an acid and an alkali, iodine and hyposulphite of soda, permanganate and oxalic acid, uranium and phosphoric acid. The



apparatus presents some very practical advantages. The principal features are described by the inventor, D. Sidersky, in the *Repertoire de Pharmacie*.

The construction of the apparatus is shown so plainly in the illustration as to require no further explanation.

On compressing the bulbs *Ee* the liquid rises through *Dd* into *Cc* until the burettes are filled, after which any surplus is drawn back by the siphon formed of *Dd* until the zero point is reached in the burette.

Iodine Ointment.*

BY S. A. MCDONNELL, PH.G.

I had occasion to use some iodine ointment for a prescription a short while ago, and upon removing it from the stock jar I noticed it was dotted throughout with the black specks of iodine. This indicated that it had been imperfectly made (and, by the way, it requires some patience to properly prepare it). Not desiring to throw it out—as it should not be dispensed in that condition—I took what I wanted from the jar and, placing it in a convenient water bath, applied heat until it melted, and was gratified to observe that the iodine lost itself in the fat, much

> "Like a snowflake on a river,
> A moment *black*, then gone forever."

Hence, on further experiment, I have concluded that this is the way to make iodine ointment. Just try a little—say

Iodine..... gr. iv
Adipis..... gr. xcvi
Mix.

Place the lard on a water bath and apply heat until melted, then drop in the iodine and stir with stick or glass rod, when the iodine will soon be dissolved. The object of the iodide of potassium and water in the official ointment is to dissolve the iodine—and in the hands of many it is only very imperfectly done, whereas by the above method it is a case of why did I not think of this before? The result is far superior and with much less labor. Of course it is understood that the heat is not high—the lard melts at near 35° C. (95° F.), and this low heat does not vaporize the iodine to any more appreciable extent than ordinarily, as it is only slowly volatilized at ordinary temperatures, and it does require 114° C. (237.2° F.) to melt it and give rise to the purple vapors, which would indicate a loss of some portion of the iodine, if not confined in a closed space. The ointment this way prepared is superior, inasmuch as we get rid of the hard crystals of iodide of potassium which remain when the water has evaporated, and scratch the tender skin by the rubbing to which it is subjected.

* Read at the semi-annual meeting of the California Pharmaceutical Society, held in San Francisco, May 7, 1894.

Therapeutic Value of Phenocol.

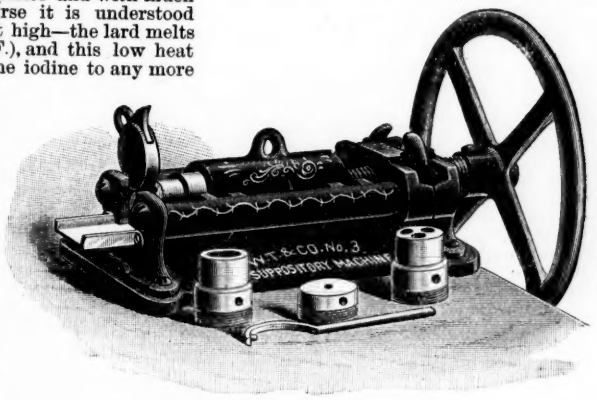
Archangelo summarizes his opinion as to the value of phenocol as follows: (1) Phenocol is a remedy worthy of an important position among the newer drugs. (2) It is a powerful antimalarial agent, a worthy supplement to quinine. (3) It is valuable in rheumatism of acute character, but useless in chronic rheumatism. (4) It is of great value in infantile therapeutics, especially in cases of malaria, typhoid, or rheumatism. (5) It is a good antiseptic; of especial service as an intestinal antiseptic. (6) It has but little value as an antineuralgic.

Pharmacy in Japan.

The *Pharmaceutische Zeitung* contains some interesting particulars on pharmacy in Japan, communicated by Professor Ogata of Tokio. Medical students, says that authority, must have followed an eight-years' course at a Japanese University before they are permitted to present themselves for the medical qualifying examination. A few of the most promising graduates are annually sent to Germany by the Japanese Government for further training, and these men upon their return are usually appointed University professors. As a rule, the offices of physician and pharmacist are combined in the same person. Nearly all medical men do their own dispensing, and are paid, not for their professional visits, but for the medicine supplied by them. The average charge for medicaments is about 2¼d. per day. The Japanese medico-pharmacist usually keeps two or three assistants, who prepare the medicines for him. Efforts have lately been made to separate the medical and the pharmaceutical professions, but so far without much result, most of the medical men opposing the change. The Japanese practice of sending annually a batch of young physicians to Germany no doubt accounts for the esteem with which German medical and pharmaceutical methods are regarded in Japan, and for the modeling of the Japanese Pharmacopœia upon a Teutonic pattern.

A New Suppository Machine.

Herewith is illustrated a machine for making suppositories, which is simple in construction, compact, and easily and



A NEW SUPPOSITORY MACHINE.

quickly operated, and which will make smooth and solid suppositories.

Each machine is furnished with a set of molds for making suppositories of three sizes—15-grain, 30-grain, and vaginal—and with mold for forming bougies. These molds are of brass and are screwed into the end of the cylinder. They can be easily and rapidly inserted or removed.

In making suppositories the cacao butter containing the medicant is placed in the cylinder, the mold required being first attached; the cylinder is put in position with the end of the mold resting against the movable plate at the end of the machine. The mass is then compressed in the forms by turning the wheel and screwing the plunger into the cylinder. After forming the suppositories the end plate is removed, and a further turn of the wheel forces them out upon the tray. The operation is then repeated until all the mass has been used.

By a special device the screw on the plunger rod may be released so that the plunger may be pushed into the cylinder or withdrawn from it without the slow process of screwing.

The price of the machine with the four molds is $18, from which a trade discount of 50 per cent. is allowed. They are sold by Whitall, Tatum & Co., of New York, Philadelphia and Boston.

Guide to New Remedies.

ABRASTOL: New name for Asaprol; calcium betanaphtholalphamonosulphonate —Antiseptic.

ACETOPHENONE: Hypnon; hypnotic.

AGATHIN: Salicylaldehyde, methylphenylhydrazone.—Anti-neuralgic and anti-rheumatic.

AGOPYRINE: Mixture of Salipyrine, Ammonium chloride and Cinchonine sulphate, in tablet form.—Influenza remedy.

ALPHOL: Salicylicacidalphanaphthyl ester.—Antirheumatic, antisyphilitic.

ALUMNOL: Aluminum naphtholsulphonate.—Astringent antiseptic.

AMIDOL: Diamidophenol hydrochlorate.—Photographic developer.

ANASPALIN: Mixture of Lanolin and Vaselin.—Ointment base.

ANTACIDIN: Calcium Saccharate.

ANTIBACTERIN: Mixture of Crude Aluminum Sulphate and Soot.

ANTIBENZINPYRINE: Composition unknown.—Addition to Benzin for preventing Electric Irritability.

ANTIDIPHTHERIN: Metabolic product of Diphtheria Bacilli; prepared by Klebs.—Specific against Diphtheria.

ANTIDYSENTERICUM: Mixture of Pelletierine, Extract of Pomegranate, Myrobalans, Extract Rose, and Acacia, in pill form.—Dysentery Remedy.

ANTIFUNGIN: Boric Acid and Magnesia.—Preservative.

ANTIPHTHISIN: Metabolic product of Tubercle Bacilli.— Remedy against Phthisis.

ANTIRHEUMATIN: Mixture of Sodium Salicylate and Methylene Blue.—Rheumatic Remedy.

ANTISEPSIN: Serum of Animals treated with Iodine Trichloride.—(Monobromacetanilide bears the same name.)

ANTISPASMIN: Narceine-sodium and Sodium Salicylate.—Antispasmodic and Sedative.

ANTITOXIN: Metabolic product of Typhoid-spirilla.—(This name is also generally applied to the metabolic products of all bacilli.)

APYONIN.—Substituted for yellow Pyoktanin (in France.)

AQUOZON.—2.5 per cent. aqueous ozone solution with addition of hypophosphites.—Roborant, tonic.

ARGENTAMIN: Ethyl diamine and Silver phosphate.—Local antiseptic and astringent

BERGAMIOL: Linalyl Anetate.—Used in Perfumery.

CAMPHAR: Solution of Camphor in 50 per cent. Alcohol, with excess of Camphor.—Dermal rubefacient.

CANCROIN: Alexine of Cancer, according to Adamkiewicz. Also made artificially from Neurine.—Remedy against Carcinoma.

CARDINE: Extract of Heart-muscle.—Cardiac tonic.

CEREBRINE: Extract of Cerebral-substance.—Nervine.

CHLORALOSE: Condensation product of Glucose and Anhydrous Chloral.—Hypnotic.

CHLOROL: Solution of Mercuric Chloride, Sodium Chloride Hydrochloric Acid, and Copper Sulphate, in Water.—Antiseptic.

CHLORYL: Mixture of Methyl Chloride and Ethyl Chloride.—Local Anæsthetic.

CINNAMOL: Rectified Cinnamon Oil.

CRELIUM: Cresol Soap.

CRYSTALLINE: Solution of Pyroxylin in Methylic Alcohol.—Dermal application.

DESINFECTIN: Residue of distillation of Crude Naphtha treated with Sulphuric Acid, mixed with Soda solution, and diluted with water.—Disinfectant.

DEXTRO-COCAINE: Iso-cocaine.

DEXTRO-SACCHARIN: Mixture of Glucose with Saccharin.

DIABETIN: Levulose.—Diabetic Sugar.

DIAPHTHAL: Orthoquinoline Meta Sulphonic Acid.—Internal Antiseptic.

DIIODOFORM: Tetraiodethylene.—Antiseptic, like Iodoform.

EMOL: A substance allied to Fuller's Earth. Possibly Talcum.—Vulnerary.

EUROPHEN: Phenyiurethane.—Analgesic, Antipyretic, Antineuralgic.

EUPHORIN: Di-Isobutyl Orthocresol Iodide.—Succedaneum for Iodoform.

FERRATIN: Iron Preparation from Hog's Liver.—Hæmatinic.

FORMALIN: Forty per cent. solution of Formaldehyd.—Antiseptic.

FORMALITH: Silica saturated with Formalin.—Vulnerary.

GADUOL: Alcoholic Extract of Cod Liver Oil.—Succedaneum for the pure oil.

GALLAL: Aluminum Gallate.—Astringent.

GALLAL SOLUBILE: Aluminum and Ammonium Gallate.—Astringent.

GALLOBROMOL: Dibromogallic Acid.—Antiseptic Sedative.

GLYCERO PHOSPHATES: From phosphorus and Glycerin.—Specific Nervous Nutrient in Nervous Depression.

HÆMOGALLOL: Reduction product of Hæmoglobin obtained by the action of Pyrogallol.—Agreeable and assimilable Blood Producer.

HÆMOL: Reduction product of Hæmoglobin, obtained by Zinc Dust.—Hæmatinic, like Hæmogallol.

HÆMOSTATICUM: Extract of the Thymus Gland of the Calf, admixed with 1 per cent. of Calcium Chloride, and Alkalinized with Soda Solution.

HEADINE: Mixture of Acetanilide and Sodium Bi-carbonate.—Cure for Cephalalgia.

IATROL: Oxyïodöethylanilide (?).—Antiseptic, like Iodoform.

IODOCAFFEINE: Unstable Compound of Caffeine with Iodine.

IODOL CAFFEINE: Crystalline Compound of Caffeine and Iodol.—More stable than Iodol.

IODOCASEIN: Compound of Iodine and Casein used for Antiseptic Dressings.

IODOLINE: Quinoline Chloromethylate, Chlorodized—Antiseptic.

IRONE: Odorous principle of Orris Root.

IZAL: By-product obtained in Coke Formation; "Thornecliffe Disinfectant."

KARDIN: Cardine.

KATHTRIN: Carbon Tetrachloride.

KREOSOTAL: Creosote Carbonate.—Antitubercular.

KRESIN: Twenty-five per cent. solution of Cresylic Acid in Water containing Sodium Cresoxylacetate.—Superseded by Tricresol.

KRESOL: Fifty per cent. Soluble in Water; Cresol Soap.—Antiseptic.

KRESOL SAPONATE: Cresol Soap.

LANAIN: Purified Adeps Lanæ (Wool-fat).—Ointment-base.

LITHIUM DICRETIN: Theobromine-Lithium and Lithium Salicylate

LORETIN: Metaïodoörthoöxyquinoline Sulphonate.—Succedaneum for Iodoform.

LYCETOL: Derivative of Piperazin.—Diuretic, Antithic.

MALAKIN: Salicylaldehyd-Paraphenetidine.—Antipyretic and Anodyne.

METHYLENE: Mixture of Chloroform (4 vol.) and Methylic Alcohol (1 vol.)—Anæsthetic.

MIGRAININE: Citrated Antipyrine-Caffeine. Probably merely a mixture of Antipyrine, Caffeine, and Citric Acid.—Remedy against Migraine.

NASROL: Sodium Caffeine Sulphonate.—(This name has recently been replaced by "SYMPHOROL.")

NEURODIN: Acetyl-paraoxyphenylure thane.—Efficacious Antineuralgic.

OLEO-GUAIACOL: Oleic Acid-Guaiacolester.—Antitubercular.

OLEO-CREOSOTE: Oleic Acid Creosoteëster.—Antitubercular.

PHEDURETIN: Phenol-derivate; composition unknown.—Diuretic and Anodyne.

PIXOL: Mixture of Potassa-solution. Wood-tar, and Soap.—Antiseptic.

REDUCIN: Composition unknown.—Photographic Developer.

RESOL: Wood-tar and Wood-spirit saponified with Potassa.

RESORBIN: Ointment base consisting of Almond Oil, Wax, Glue, Soap and Water.

RESORCYLALGIN: Antipyrine Betaresorcylate.—Antipyretic and Anodyne.

RHODALLINE: Thiosinamine.—Dermic, and Fixing Agent in Photography.

SALOCOLL: Phenocoll Salicylate.—Antipyretic.

SALUMIN: Aluminum Salicylate.—Astringent.

SALUMIN SOLUBILE: Aluminum and Ammonium Salicylate.—Astringent.

SALOLPHEN: Salicylphenetidine —Anodyne, antirheumatic, and antineuralgic.

SANATOL: Crude Cresol-sulphuric Acid.—Disinfectant.

SANGUINAL: Blood Preparation of indefinite composition.—Hæmatinic.

SAPROL: Mixture of Crude Cresols with Hydrocarbons.—Antiseptic.

SEDATINE: Paravalerylamidophenetol.—(Formerly a synonym of Antipyrine.)—Sedative.

SEQUARDIN: Sterilized Testicular Fluid.—Nervine.

SOMATOSE: Albumose Preparation.—Dietetic.

STERESOL: Solution of Gum-lac, Benzoin, Tolu Balsam, Carbolic Acid, Cinnamon Oil, and Saccharin, in Alcohol.—Antiseptic Varnish.

STERILISATOR: Aromatic Vinegar, with free Hydrochloric Acid, Tartaric Acid, Citric Acid, and Saccharin.

SUCROL: Dulcin; Paraphenetol-carbamide.—Sweetener.

SULPHURATED OINTMENT: Mixture of Unsalted Butter (25) and Concentrated Sulphuric Acid (5).—Revulsive.

SYMPHOROL: Generic name for the Salts of Caffeine-sulphonic Acid. "L"= Lithium, "N" = Sodium, "S" = Strontium Salt.—Diuretics.

TANNAL: Aluminum Tannate.—Astringent.

TANNAL SOLUBLE: Aluminum Tannotartrate.—Astringent.

THERMODIN: Acetyl-ethoxy-phenylurethane.—Prompt Antipyretic.

THEOFORM: Bismuth, Dithiosalicylate, Coagulant. Hæmostatic, Antiseptic, Mildly Anæsthetic.

THIOSAPOL: Soap chemically combined with Sulphur.

THIOFORM: Bismuth dithiosalicylate.—Coagalant, haemostatic, antiseptic, mildly anæsthetic.

TIHURET: Oxidation product of Phenyldithiobiuret.—Antiseptic.

TOLYLANTIPYRINE: Tolypyrine, Paratolyldimethylpyrazolone.

TOLYLHYPNAL: Chloral Hydrate-Tolypyrine.—Anodyne and Hypnotic.

TRICRESOL: Purified natural mixture of the three Cresols of Coal-tar.

ULYPTOL: Eulyptol.

URETHYLANE: Methyl Urethane.

URICEDIN-STROSCHEIN: Compound containing in 100 parts: 27.5 Sodium Sulphate, 1.6 Sodium Chloride, 67 Sodium Citrate, and 1.9 Lithium Citrate.

VALZIN: Dulcin; Sucrol.

VASOGEN: Oxygenated Vaselin. Sulpholeated Mineral Oil Emulsifiable with Water.—Absorbent Vehicle.

Experiences of Photographic Trade.*

By A Suburban Pharmacist.

My experience in combining the business of a photographic dealer with that of a pharmacist has been so encouraging that I venture to submit some notes in the hope that they may be useful to others similarly situated. As an apprentice and assistant I dabbled in the "dark art," always having sufficient interest in it to keep *au courant* with its advances. When I went into business on my own account, my neighborhood turned out to be rather hot in a "cutting" sense, and the frequency with which it was brought home to me that those "wretched proprietaries" could be obtained equally well at an oil shop or draper's made me think it was time to counteract in some way such an unprofitable branch.

About this time my attention was drawn to retailing photographic materials by some correspondence on the subject in *The Chemist and Druggist*. the result being that I resolved to give it a cautious trial. When next my windows were dressed I put a little pile of dummy Ilford plates in a good position, and inscribed in my best printing the legend "Photographic Materials." In the pharmacy itself was placed one of Lancaster's quarter plate "Instantographs," and a small stock of plates (I believe only three dozen quarter-plates) was laid in. It surprised me to find from the remarks of customers what a lot of amateurs there were about, and presently people I had never seen before would look in and say, "I see you stock plates," etc., and want to know the cost of making up some developer or other recipe.

I used at this time to get plates and papers through the patent medicine houses; but as business grew I found a distinct saving in dealing direct with makers, some of whom offer great advantages to even small orders from genuine dealers. Next season I took a series of local views and exhibited them in the window, replacing showcards in the pharmacy by photographs and enlargements to illustrate different processes. This attracted a lot of attention not only from photographers but from the laity. A more elaborate decoy camera now took its place beside the humble "Instantograph"—a half-plate camera, resplendent with brasswork and French polish, its lens fitted with a Thornton-Pickard instantaneous shutter and fastened on a beautifully made stand with aluminium fittings.

I fitted up a "Dark-room for Amateurs" quite inexpensively. A light tight wooden shutter was fitted over the window, with a small piece of ruby glass let in for working in the daytime; for night work an argand gas burner with suitable ruby chimney was provided. A table, chair, bucket, glass water barrel, a few measures and dishes, developing and fixing solutions, completed the contents of the room. Naturally, the luxury of water laid on, with a suitable sink for waste water, will suggest themselves to anyone who wants to do the thing more thoroughly. A series of printed labels for the more common photographic chemicals always makes more impression than written ones.

Your competition has already shown that the most popular sets of apparatus for an amateur to start on and for this reason for a dealer to stock, are those made by Lancaster of Birmingham. They very reasonably require, as a guarantee that their customers are really dealers, that the opening order should be for at least three cameras, but this need not entail much expense.

The English lens makers allow a good discount to dealers; it is well to be provided with their lists and terms against an inquiry.

A rather noticeable outcome of the keen competition between dry-plate makers is seen in the publication of gratis monthly magazines by some of the big firms. The makers of Ilford plates publish monthly *Photographic Scraps*, and although a good part is given over to testimonials of their own goods, there is still a sufficiency of information to make it worth reading. The proprietors of Cadett plates publish a magazine called *Dry Plates*, in which a series of very concise instructive articles are appearing with other well selected material. Elliott & Sons of "Barnet plate" fame, bring out *The Photographer's Record*, which in addition to the reading matter frequently contains a small photograph in carbon, one of their specialties. A regular supply of these publications would be sent on request, but of course it is reasonable to expect the dealer to carry a stock of the respective plates.

It is a good plan to make a feature of a developer, toning bath or anti-halation backing compound. Perhaps the best developer to start a beginner with is the hydroquinone developer, for which there is a formula given on the lid of boxes of Ilford plates. Pyro developer yields fine results, but needs a lot of experience to make the best use of it. In *The Chemist and Druggist* April 21, there was a recipe for "Combined Toning and Fixing Bath,"* which answers well. It has been made up and sold in my business for two years now, although candidly I would hesitate to guarantee the permanency of prints treated to such a heterogeneous mixture. The separate toning and fixing baths are undoubtedly better and simpler and more likely to give stable results.

Newly fledged amateurs thirst for novelty, and the chemist should be prepared to bring new developers and papers to their notice. Personally I take in quite a budget of photographic papers and endeavor to try practically any new developer or process, so as to keep up with my more advanced customers. It is a good plan to get identified with a local association, as this is an easy means of introducing a lot of custom; a list of members can usually be had from the secretary, to whom could be posted price lists of photographic goods kept in stock. It is even worth while to start a society if one does not already exist in the neighborhood, only it is policy not to hold a too responsible post therein. When the winter draws near the supplying of lantern requisites is now a feature in photographic businesses. Many amateurs make lantern slides of their best work and thus are able to show their photographs to a greater number. There is also business to be done by letting slides on hire.

Druggists ought really to grasp the fact that, as they are the only legal vendors of some extensively used photographic chemicals, amateurs naturally expect to obtain other requisites at a druggist's in preference to an ironmonger's or stationer's. One important thing should be borne in mind—never to knowingly sell stale plates or papers, as this does an immense amount of harm and is an evil really existing. Stale plates or papers should rather be thrown away or offered at a cheaper rate, as they are often useful for experimental purposes.

An interesting effect of combining photography with a chemist's business is that it keeps the returns (which in many businesses drop in the summer months) up to the winter level—at least, such has been the effect in my own case, and I can never regret the day I embarked in the business.

The Chemist and Druggist.

* See also Queries and Answers column in this issue.

West Indian Lime.

(*Citrus Medica*, L., var. *acida*, Brandis.)

One of the most distinct species of *Citrus* is *C. Medica*, which includes the citron, lemon, and the limes. Of the limes there are sweet and sour limes, characterized, according to Roxburgh, by small pinkish flowers, usually four petals, and a perfectly spherical fruit, having a thin skin of a lively yellow color and pale acid juice. Sir Joseph Hooker states that the word lime is promiscuously applied to fruits very different in character, especially in British India, where the sweet limes of various forms are universally spoken of under that name.

The sour lime, although probably introduced from the East Indies, has made its second home in the West Indies, where, indeed, is its present principal area of systematic cultivation. The history of the sour lime is given by Sir Joseph Hooker in the *Botanical Magazine*, tab. 6 745. It was first described by Rumph (*Hortus Amboinensis* ii, p. 107, tab. 29) in 1750, under the name of *Limonellus*, alias *Limotenuis*, or thin-skinned lemon. *C. Limonellus* is also described by Miquel, who says it is cultivated everywhere in the Dutch East Indies. The same plant is well figured by Wight as *C. Limetta*, Risso (*Icones*, t. 958), who says it is wild in the Nilgiris. In the West Indies, McFadyen very clearly describes it as *Citrus Lima*, "a thorny shrub with ovate leaves, pentamerous white flowers, small nearly globose yellow fruit, with thin skin, and an abundance of pure acid juice; it is naturalized in Jamaica, forming strong fences." Brandis (*Forest Flora*, Ind., p. 52) rightly places the sour lime of India as a variety of *Citrus Medica*, L.; other authors refer the sour or West Indian lime to *C Limetta*, Risso, its nearest European representative, but this latter differs in its sweet juice. The botanical position of the West Indian lime as an acid variety of *Citrus Medica*, L , is now established. This small acid lime seems confined to tropical and sub-tropical zones. It does not appear to flourish in Southern Europe, and as already stated, its present headquarters under cultivation are in the West Indies, where in the islands of Montserrat, Dominica, and Jamaica it is commercially utilized for the production of lime juice and essential oil.

The lime, as already mentioned, yields juice of a singularly pure, acid flavor. The fresh limes are sometimes exported as gathered, or they are pickled in sea water or brine and shipped to the United States. The demand for the fruit in a fresh or pickled state is said to be very limited. Sir Joseph Hooker states: "The lime is a favorite fruit in the West Indies and the Southern United States, the acid being far more grateful than that of the lemon; and it is, hence, universally used for flavoring soups, etc., and in the preparation of many alcoholic and acidulated drinks. In my younger days it was imported in vast quantities into the city of Glasgow, providing an indispensable material for the brewing of the famous Glasgow punch. That it is now so seldom seen, comparatively, is due to the declension of that social and family intercourse that once was so intimate between the great city and the Spanish Main. It is still (with the lemon) the principal source of citric acid."

Preparation of Diphtheria Antitoxin.

Heretofore active antitoxins have been prepared in a solid form by precipitating all or a portion of the albumen from either blood serum or from milk by means of the albumen precipitates usually utilized in physiological chemistry, such as alcohol or ammonium or magnesium sulphate. Aronson has observed (*Berl. Klin. woch.* No. 19) that by filtering liquids rich in bacteria through a not too thin layer of freshly precipitated aluminum hydroxide, complete sterilization can be obtained. Unlike a bouillon which was freed from bacteria by filtration through a Chamberland filter, a liquid filtered through aluminum hydroxide proved to be non-toxic. Further experiments proved that the freshly precipitated hydroxide did not destroy the antitoxin but merely kept it from passing through. The intensity of the retained antitoxin varies, however, with the thickness of the layer through which it is filtered. This Aronson overcomes by adding aluminum sulphate to the solution containing the antitoxin and precipitating by addition of ammonia. This precipitate contains nearly all of the antitoxin present in the fluid and is thus proportionately richer in antitoxins.

Practically the process is carried out thus: Dilute 100 cc. of blood serum containing the antitoxin with an equal volume of water, add 70 cc. of a ten per cent. solution of aluminum sulphate and then add five per cent. ammonia solution until only a weakly acid reaction is shown.

Other inorganic precipitates of a colloidal nature will also answer for this purpose, such, for instance, as ferrocyanide of zinc produced by the precipitation of zinc sulphate solution by ferrocyanide of potassium, or hydroxide of iron, produced by precipitation of ferric salts by alkalies.

The antitoxin-bearing inorganic precipitate, which, in the use of a colloidal aluminum salt can be produced containing 95 per cent. of active principle, should then be washed with water and separated by repeated treatment with a weak alkaline solution (sodium carbonate in ammonia). The separation of the larger portion of the active substance contained in the fluid from the inorganic matter present must be so conducted that only small quantities of the liquid should be placed in a filter at one time, and the filter be constantly agitated, as otherwise the alumina will collect upon the filter paper and thus retain the active constituent.

The antitoxin can be obtained in the solid form from this albuminous filtrate, either by precipitation with alcohol or with ammonium sulphate or by evaporation of the solution at a temperature of 45° C. in vacuo.

The substance thus obtained should be white, soluble in water, more readily soluble in dilute alkaline solutions, and should show the general reactions of albuminoids. It contains about from 3 to 5 per cent. of ash.

From a blood serum of which 0.0005 cc. sufficed to fully counteract the quantity of diphtheria poison sufficient to kill a guinea pig weighing from 300 to 400 grammes in 38 to 46 hours, Aronson obtained an antitoxin in solid form, of which 0.000015 grammes exercised a corresponding effect.

FOR ITCHING PILES.

Chloral hydrate	gr. xx
Petrolatum	℥j
Menthol	℥ss

Oak Wood and Bark.*

By Wm. B. Thompson.

Philadelphia, Pa.

It is asserted that oak timber of the present, particularly in England, is not the equal in durability to that of a former period. If the wood has deteriorated is it not likely that the bark, too, has become inferior? Tanning barks, especially of the oaks, play an important role in the arts. An exhaustive examination of the various derivatives of the universal astringent principle of vegetable substance —tannin—in its natural combinations, shows great variation in the respective yield, which variation is influenced by climate, soil, culture, season periods and other causes. As these agencies change or become modified by further circumstances the time will, no doubt, arrive when some natural productions of the vegetable kingdom may be so diminished in amount and quality of product as to cause serious inconvenience. One chief source of error in the cultivation of trees and plants exists in the fact that we do not adhere with sufficient exactness to the processes which nature in her laws has wisely established for the fulfillment of her designs. The agriculturist, in the cultivation of his arborous and other trees, aims to produce, with growth, points of beauty. Nature does this too, but, unlike the man, she never sacrifices the utilities to the pleasing attributes. The germination of seed and the means by which healthful, progressive growth is secured is a subject which may and can be better comprehended. The acorn falls upon the *surface* of the ground, and the natural processes take care of it there. Man buries the seed of the oak, and the probabilities are that he blunders in doing so. An examination of a sprouting nut will show that this growth tends downward as if in an effort to reach the soil, while the acorn lies on its side, though even then the little tubercule, which is ultimately to become the tree, keeps its apex upward. This makes it evident that this part of the process at least should be performed in the air and light, that is when it is done as Nature intended. It is usually considered that during the fermentative part of the process of germination—the earliest stage—light should be excluded. This cannot apply, however, to the seed of the oak, because that part of the process is performed before the shell is ruptured.

Now, the conditions which surround the starting point of vegetable growth are good subjects to study, and are also matters which cannot be treated with indifference, or in ignorance, if we propose to attain good results. Just what bearing the air-grown and the earth-grown processes have, relatively, upon the fiber and the heart of oak, it would be of much interest and value to know. A buried acorn somehow strives to get to the surface, and when there this is noticed—that the cotyledons acquire a greenish tinge of color which they do not have when buried. Does this not furnish some significant information? Is it not known that in all etiolate plants, when compared with the same species which have been air-grown as it were, or grown in the sun beams, are wanting in *carbon* and *astringency*—the very essentials in which the now perishable wood of oak is so markedly deficient. Is not our blanched celery of the table an illustration of this also? We have soft, tender threads and much succulency. So in the artificially grown oak we have a loose texture and a weak fiber. Think for a moment of the wood of oak enduring in use five hundred years! Start growth wisely and well, the timber and parts will be good; the tree may be gnarled, stunted, deformed in comparison with lines of grace, symmetry and beauty in limb and branch, but the durability will nevertheless be there and the traditions of the stanch old oak still be a boast of our time.

* *American Journal of Pharmacy*, June, 1894.

Oil of Bay.

Fritzsche Brothers, New York and Garfield, N. J., U. S. branch of Schimmel & Co. of Leipsic and Prague, have issued a circular of information on oil of bay which is of sufficient importance to pharmacists and others interested in the chemistry of the essential oils to warrant us in reproducing the article in our columns.

Fritzsche Brothers say:

Some statements recently published by a New York firm of manufacturers and dealers in essential oils, relating to the physical characters of oil of bay, more especially to its specific gravity, have led to a number of inquiries on the part of our friends and patrons respecting their correctness or validity. It is therefore in response to such inquiries, as also to consider some other points of controversy relating to this oil, that we have been induced to issue this circular.

In order that our views on the subject may be correctly apprehended, and the points to which we take exception more easily noted, we deem it best to reproduce *verbatim* the statements of the firm referred to, which are as follows:

Several years ago (1888) this oil was the subject of a great deal of newspaper controversy bearing on its specific gravity, and it was generally agreed among those who were competent to judge, that the specific gravity of a complete bulked distillation of pure oil should be about .965 at 60° Fahr. We certainly expected to see this conclusion stated in the next revision of the U. S. Pharmacopœia, wherein the latest authentic information on such points should be set forth, but are surprised to see the requirement of S. G. .975 to .990 at 59° Fahr.

Of the last 6,276 pounds of oil bay distilled by us the lowest specific gravity at 60° Fahr. was 9.40 and the highest 1,021, according to the portion of the *run* from which the cans tested were taken, neither extreme representing a complete distillation. The *average* of this entire quantity, if bulked in one tank, would have been .96475 + at 60° Fahr. by actual calculation, which confirms the result of our investigations in 1888. Therefore, *we do not accept* the U. S. Pharmacopœia as correct, believing that the oil tested for this particular report must have been distilled from bay leaves which had been deprived of some proportion of their volatile properties, accidentally or otherwise. A work of this nature should, we think, have contained a more comprehensive statement, giving the *mean* specific gravity which a pure oil should show.

The oil bay we are regularly delivering under our brand tests as near .965 as is practicable, and on the above basis is as perfect an oil as can be made.

While we much regret the necessity of thus directly taking issue with the U. S. Pharmacopœia, we feel forced to do so in self-protection.

The main point under consideration is evidently the question as to whether a pure and normal oil of bay has a specific gravity embraced within the limits assigned to it by the U. S. Pharmacopœia of 1890, namely "0.975 to 0.990 at 15° C.," or whether the standard should be placed at "about 0.965," in accordance with the views expressed by the manufacturers above quoted.

In the statements of the latter the intimation is clearly presented that those adopting the higher standard of specific gravity were not competent to judge in this matter, that authentic information had not been obtained, or that "the oil tested for the purpose of the revision of the Pharmacopœia must have been distilled from bay leaves which had been deprived of some proportion of their volatile properties, accidentally or otherwise."

Our views on the essential points of this discussion may be quite briefly expressed, for we believe that no prolonged argument is required to demonstrate that a standard of 0.965 is considerably too low for the average specific gravity of a pure and normal oil of bay. We also regard it much less practicable to assign to this oil or to most others a so-called "*mean* specific gravity," restricted to a single value, such as 0.965, than to state the limits, when these are known, within which the specific gravity of oils from different distillations or a series of distillations may fluctuate. This view respecting this particular physical character of the essential oils finds expression in all the Pharmacopœias, as well as in the various widely consulted reports of our Leipsic house (Messrs. Schimmel & Co.). It is true that in some oils, notably those of orange and lemon, as the experiments conducted in our German and American laboratories have shown, the specific gravity of pure products ranges within very narrow limits, while in others a much greater variation may occur, and of the latter class an example is afforded by the oil of bay.

Bay leaves, as is well known, afford on distillation a so-called "heavy oil" and a "light oil," or those which are respectively heavier and lighter than water, and it is only by the combination of these that a normal oil of bay is obtained. The specific gravity of the product is naturally dependent upon the relative proportion of the two oils yielded by the leaves, and according to our experience variations in these proportions are attributable, at least in part, to the relative freshness of the leaves, and the season in which they are collected. While we have occasionally obtained oils having so low a specific gravity as 0.965, the average of numerous distillations of the finest quality of leaves is considerably higher, and is, in fact, within the limits adopted by the U. S. Pharmacopœia of 1890. For example in a series of distillations, each comprising many thousand pounds of the leaves, we have found the finished products or the combined light and heavy oils, to have specific gravities at 15° C. ranging as follows:

0.965, 0.967, 0.975, 0.976, 0.978, 0.981, 0.982, 0.984, 0.986, 0 987.

These examples of oils having a specific gravity ranging from 0.975 upward, could be frequently repeated in our experience, while, as previously stated, it is rather exceptional to obtain an oil having so low a specific gravity as 0.965. Specimens of oil of bay distilled in the West Indies, we have also found to have specific gravities within the limits adopted by the Pharmacopœia, for example, 0.979 and 0.980.

In view of the fact that a pure oil of bay may occasionally have a specific gravity as low as 0.965, it would not seem improper that this should be accepted as the lowest limit. By no means, however, should a specific gravity of 0.965, or "about 0.965," be considered a pharmacopœial "standard of quality," or even to represent a mean or average specific gravity of this oil.

The most recent and, in fact, the only somewhat comprehensive chemical examination of this oil, was that made a few years ago by Dr. Otto Mittmann (*Archiv. der Pharmacie*, 1889, pp. 529-548, and Schimmel & Co.'s *Bericht*, October, 1889, p. 6). This investigation, which was conducted with oil distilled by us, from leaves imported directly from St. Thomas, showed the oil to contain terpenes, including pinene, probably dipentene, and a polyterpene, together with eugenol, which is the most essential constituent, and a very small amount of the methyl ether of eugenol.

A further chemical examination of the oil of bay is now in progress in our Garfield laboratories. This promises to afford some interesting results, which will be communicated later.

Queries and Answers.

We shall be glad, in this department, to respond to calls for information bearing on pharmacy or any of its allied topics, and cordially invite our friends to make use of this column.

When sending for the formula of an unusual, patented or proprietary compound, the query should be accompanied with information regarding the locality in which it is used, its uses, and reputed effect. When it can conveniently be done, a specimen of the label used on packages of the compound should also be sent.

Stamping Compound.—A. S. writes: "Please publish a formula for a liquid stamping compound for use in stamping linen, cotton, etc., to be embroidered."

The liquid commonly used for this purpose consists of a thin starch paste colored with ultramarine or other suitable coloring material.

Powders are generally used for stamping embroidery, and blue stamping powder is prepared as follows:

Equal parts resin, damar, copal, sandarac, Prussian blue, ultramarine and bronze powder. The gums are first to be thoroughly triturated and mixed by passing through a sieve, and the other ingredients carefully added. Other colors may be made by using chrome yellow, burnt or raw sienna, raw or burnt umber, vandyke brown, etc. For stamping fabrics liable to be injured by heat the stamping is done by moistening a suitable powder with alcohol and using it like a stencil ink.

Lyon's Kathairon. M. R. A.—The formula given below furnishes a preparation nearly identical in character and color:

Castor oil	1 fl ounce
Tincture cantharides	1 drachm
Oil bergamot	20 minims
Stronger ammonia	1 drop
Alcohol	3 fl. ounces

Mix the oils, ammonia and alcohol, adding the tincture of cantharides lastly.

Percentage Solutions. Student.—The printing of tables such as you describe would not be nearly so useful as a few simple rules. Caspari thinks it is the simplest and safest plan to make percentage solutions of salts according to one fixed rule by weight, choosing the quantities nearest to the desired volume. For instance, we know that distilled water at 60° F. is assumed to weigh practically 456 grains (U. S. P. 455.7 grs.) per fluid ounce, and this can be our guide in determining the proper proportions for a solution. As an example, take a 2 per cent. solution of any soluble chemical; to have 2 fluid drachms of this solution, we would take 2¼ grains of the chemical and 122½ grains of distilled water, and to have 4 fluid drachms of a 4 per cent. solution we would take 10 grains of the chemical and 240 grains of distilled water; in either case our finished solution would be slightly more in volume than needed, and this trifling excess could be thrown away. If larger volumes are to be prepared, a closer calculation could be made so as to avoid possible waste of expensive material. For instance, if 8 fluid ounces of a 5 per cent. solution are wanted of cocaine hydrochloride, we would say 8 fluid ounces of water will weigh 3,648 grains; hence we shall make a quantity of solution nearest to it in weight and yet insure our volume. This we find to be 3,850 grains, and of this weight 5 per cent. is 192½ grains; we must therefore use 192½ grains of the cocaine salt and 3,657½ grains of water, yielding a trifle over 8 fluid ounces of solution. If two or three substances are to be present in a percentage solution their combined weights must be subtracted from the desired weight of the finished product, in order to find the proper quantity by weight to be used of the solvent. For instance, a physician desires 1 fluid ounce of a 4 per cent. cocaine solution containing 2 per cent. of boric acid: the quickest way to make it would be to dissolve 20 grains cocaine hydrochloride and 10 grains of boric acid in 470 grains distilled water, and of this solution measure 1 fluid ounce; the excess of volume would be found very trifling.

Monobromate of Camphor Pills.—E. E. H. writes: Please inform me how to proceed in compounding the following:

Camph. monobrom	ʒ i
Ergotin	ʒ ii

M. ft. pil. No. xxx.

Reduce the camphor monobromate to an impalpable powder and incorporate the ergotin; mass with extract of taraxacum or gentian. The ergotin (extract of ergot) should be of a firm consistency; if too fluid, evaporate on a water bath until of proper consistency. It is difficult to make a satisfactory pill of this combination; capsules work better.

Cathartic Soda Water Syrup.—C. H M. writes: "Please give a formula for making a pleasant tasting cathartic syrup for soda fountain use."

As cascara and allied vegetable extracts are inadmissible owing to their persistent taste and odor, we are almost restricted to the use of active principles having cathartic properties.

A mixture of jalapin, aloin, podophyllin and similar principles, combined with carminatives and flavoring ingredients would seem to be indicated, the proper proportion of each would have to be decided by experiment.

Correspondence.

"Thesperine." (?)

Editor AMERICAN DRUGGIST:

A customer brings me some prescriptions written by a physician in a neighboring town. He (the customer) told the physician he would bring them to me in preference to having them filled by the local druggist, upon whose blanks they were written. One of them is as follows:

Ammon chlorid	ʒ ss
Thesperine (?)	ʒ iv
Aqua destil q. s.	℥ vi

M. Sig. Teaspoonful as a gargle 3 times per day.

Now I don't know what is meant by "Thesperine," and while it is just possible that some proprietary article bears that title, I am disposed to think it a case of collusion between the physician and the druggist, the title "Thesperine" being

agreed upon between them to represent some substance well known by another title. This view is given color by the fact that this physician is proprietor or "promoter" (both, I think) of "Thespian Springs," a mineral spring of local fame. If there is any such substance is "Thesperine," of which, as a pharmacist, I should have knowledge, will you please set me right, and oblige E. N. MOODY.

CLARKSVILLE, MO.

[If there is a medicinal substance bearing this name in use by physicians we are not aware of it. It is possible, however, that our correspondent has not made a careful copy of the prescription. We have not seen the original and it may be that "phosferine" was intended. This is a solution of chloride of iron and phosphoric acid to which glycerin is added, and it is used to some extent in the New York clinics, though not always under this title. —ED.]

A Lesson in Physics.

Editor AMERICAN DRUGGIST:

DEAR SIR: Here is an incident that actually occurred to my experience, and which may prove of interest and amusement to your readers, illustrating a law in physics. A clerk prepared a simple syrup, and strained it while hot into a bottle. Some of the syrup running on the sides, Esculape placed the 1 gal. bottle in the sink, and turned the cold water on in order to wash off the sides; he, in the mean time, looking out of the window. When sufficient time had elapsed he raised the bottle and remarked to me: "See how light it is"!

The bottom was gone, so was the syrup.

H. ORNSTEIN.

NEW YORK.

Quiz Box.

This series of questions will be continued each week. The answers to each series of questions will appear thein issue for the fourth week following their publication. All of our readers are invited to compete for the prizes named below.

Replies must be in our hands within three weeks after the appearance of the questions. The names of all making an average of 75 per cent. will be published each week.

Address Editor Quiz Box, 37 College place, New York.

FIRST PRIZE.—A new Dispensatory, latest revised edition, will be awarded to the person who makes the highest general average of answers for the *entire* series of questions as published from March 22 to June 28, 1894.

SECOND PRIZE.—Copies of Harrop's "Monograph on Flavoring Extracts" will be awarded to the three persons who make the next highest general average for the entire series of questions.

THIRD PRIZE.—A copy of Heebner's Manual of Pharmacy and Pharmaceutical Chemistry will be awarded to the person sending in the most satisfactory replies to any three sets of questions, but who does not win either of the other prizes.

FOURTH PRIZE.—A copy of Lloyd's "Elixirs" will be awarded to every person who sends in an answer to *every one* of the questions published in the series, making an average of 66 per cent.

Answer to Questions; Tenth Series.

111. In 1790, during the French revolution, when everything was in a state of change, Prince Tallyrand rose in the French Assembly and proposed the formation of a new system of weighing and measuring, to be founded upon some natural standard. The matter was referred to the French Academy of Sciences, who invited scientific men from other countries to act with them. As a result many representatives from foreign countries met in Paris and, with five of the most prominent members of the academy, astronomers. physicists and mathematicians, prepared a report which was submitted to the academy March 19, 1791, and the results incorporated in this report may be considered the foundations of the Metric system. At first two units were proposed, both to be taken from some dimension of the earth itself. One of these units was to be taken from the quadrant (¼ part) of the earth's equator, but this idea was soon abandoned in favor of the quadrant of the meridian, since, as they said, the equator passes through but few places upon the globe while every country has meridians passing through it.

The committee recommended that the ten-millionth of the one-fourth part of the meridian passing through Paris be considered as the unit of length and be called a meter, and instead of measuring it in degrees, minutes and seconds, as such measurements are generally made, they proposed the use of a decimal scale for the purpose.

They suggested the measurement of an arc of the meridian passing through Dunkirk (France), Paris and Barcelona (Spain), and from this measurement to determine the exact length of the quadrant. This report was accepted by the assembly March 26, 1791, and the academy was given full power to carry out the suggestions they had reported. Mechain and Delambre were appointed to make the delicate measurements necessary, and after seven years' work completed the task of measuring the arc between Dunkirk and Barcelona. The final report of the committee was presented April 30, 1799; it was accepted and by the law of 1799 became the standard of France, but was not generally adopted until 1837 when a law compelling its exclusive use after January 1, 1841, was enacted. Since that time it has been legalized or adopted by most of the great nations of the world.

The report of the committee gave to the meter a length of 39.37079 British inches, and this length was inscribed upon a bar of platinum, and deposited in the vaults of one of the public buildings, with other archives, and is now referred to as the "metre des archives." From this bar other copies have been made and distributed throughout the world.

Subsequent measurements show that this meter was slightly in error, but as the error is known we can apply the correction and obtain correct results. It was also decreed by this same committee that the unit of capacity should be a cubic vessel $\frac{1}{10}$ meter on a side, to be called a cubic decimeter, and its capacity to be called one liter. When filled with distilled water at its greatest density (4°C.) this vessel would hold a weight to be called one kilogramme, made up of 1,000 equal parts, to be called grams. Each gram is, therefore, the weight of a cube of water $\frac{1}{100}$ of a meter on a side, or one cubic centimeter.

112. The following units are used in the metric system:

Meter, unit of length, relation or equivalent, 39.3708 inches.
Are, unit of surface, 119.6 square yards.
Stere, unit of solids or volumes, 1.308 cubic yards.
Liter, unit of capacity, .908 of a dry quart. 1.0567 wine quarts.
Gram, unit of weight, 15.432 grains.

113. An imperial gallon contains 277.274 ubic inches.

Imperial pint (1-8 gallon)=277.274÷8= 34.659 cubic inches in one pint.

1 Meter=39.37 inches; 1 cubic M.= 39 37 × 39.37 × 39.37=61027.05 cubic inches.

1 Liter or 1-1000 of a cubic metre= 61027.05÷1000=61.027 cubic inches.

61.027 (cubic inches in one liter)÷34.659 (cubic inches in one pint)=1.76.

There are, therefore, 1.76 imperial pints in 1 liter.

114. At the last revision of the Pharmacopœia it was resolved to measure all liquids and weigh all solids.

Therefore, of solids parts means parts by weight, of liquids parts by measure, but even now some thick or dense liquids are weighed when great accuracy is desired, and it would, undoubtedly, be better to weigh all liquids if time would allow.

The formulæ for extracts, fluid and solid, are good illustrations of the application of this principle.

Extractum hydrastis fluidum.

Hydrastis (in No. 60 powder), 1,000 grams.

Glycerin, 100 cubic centimeters.

Alcohol,

Water, aa. q. s., to make the product 1,000 cubic centimeters.

Here a gram is a weight part and a cubic centimeter is a volume or measure part, and in the end 1 cc. represents one gram of the hydrastis.

115. 1 fluid ounce of water=455.7 grains × 13=5924.1 grains in 13 ounces of water. 1 gram=15.43 grains. 5924.1 grs.÷15.48 =383.93 grs. in 13 fluid ounces of water. Chloroform has a specific gravity of 1.490; it will, therefore, weigh 1.490 times as much as 13 fluid ounces of water. 383.93 grams × 1.490=572.05570 grams in 13 fluid ounces of chloroform.

116. 75 grains of an equal mixture of glycerin and alcohol will have 37.5 grains of each constituent.

The question then becomes, how many minims will 37.5 grains of each measure; their sum is the answer.

1 minim of water weighs 0.949 grains.

1 minim of alcohol (sp. gr. 0.820) weighs 949 × 820 = 0.7781 grains. 37.5 (weight of alcohol) ÷ 0.7781, weight of 1 minim,= 48.18 minims. Alcohol measures 48.18 minims.

0.949 (weight of 1 minim of water) × 1.250 (sp. gr. of glycerin) equals 1.18625 grains (weight of 1 minim of glycerin) 37 5 ÷ 1.18625 = 31.61 minims of glycerin.

(Alcohol) 48.18 + 31.61 (glycerin) = 79.79 minims, measure of the mixture.

117. 1 kilogram of alcohol weighs 1,000 grams or 15,432 grains; 1 fluid ounce of water weighs 455.7 grains.

Sp. gr. of alcohol (U. S. P.) 0.820; 1 fluid ounce then weighs 0.820 × 455 7 or 373.674 grains.

15,431 (grains in 1 kilogram) × the weight of 1 fluid onnce of alcohol, 373.674 grains, = 41.29 fl. ounces of alcohol in 1 kilogram.

118. Winchester bushel, the dry measure of capacity (U. S.) = 2,150 cu. in. 1 bushel = 4 pecks = 32 quarts. 1 quart then = 2,150 ÷ 32 = 67.20 cu. inches in Winchester quart. 67.20 cu. in. = 37.22 fluid ounces.—In practice, however, the term is applied to a bottle of the capacity of 40 imperial fluid ounces.

119. 231 cu. in. × 50 gallons = 11550 cu. in. 1728 cu. in. in one cu. ft., 6.684 cu. ft. in 50 gallons. The box will need to have its dimensions such that when length, breadth and height (all equal) are multiplied together the product shall be 6.684 ft. Cube root of 6.684 = 1.88 feet, or 1 foot 9 and .6 inches long, broad and high are the dimensions.

120. Such a mixture will have 2.5 pounds ether and the same weight of glycerin.

2.5 pounds Av. = 7,000 × 2.5 = 17,500 grains.

1 fluid ounce of water = 455.7 grs.

Specific gravity of ether varies from 0.725 to 0.728; taking it at 0.728 1 fluid ounce will weigh 455.7 × 0.728 = 331.7496 grs.

Glycerin (sp. gr. 1.250) 1 ounce will weigh 455 7 × 1.250 = 569 625.

17,500 ÷ 331.7496 = 52.78 fl. ounces of ether.

17,500 ÷ 569.625 = 30.72 fl. ounces of glycerin.

52.78 + 30.72 = 83.50 fl. ounces = 5 pints, 3 ounces and 4 drams.

Names of Students Whose Grade Stood 75 on the Tenth Series.

James Banks, Mifflintown, Pa. H. J. Barber, Alton, Ontario, Canada. J. C. Boyer, Wiconisco, Pa. T. H. Brenneman, Harrisonburg, Va. W. E. Bruce, Boston, Mass. J. W. Brewer, Lake Ponsten, S. Dak. G. E. Barkesdale, Richmond, Va.

Miss Maude Florence Cain, Lancaster, Pa.

J. C. Dague, Fredericktown, Ohio. F. L. Dolan, Freeman, Mo. T. J. Derrberry, Centreville, Tenn. H. J. Force, Newark, N. J.

William E. Gokay, Bennington, Vermont. Max A. Goltz, Winona, Minn.

Frank Hartmann, Middletown, Conn. Frank L. Harwood, Warren, Mass. Seymour Hull, Hoosick Falls, N. Y. G. C. Hodges, Utica, N. Y. Chas. W. Hyde, Sharon, Pa.

A. M. Leine, Honesdale, Pa. Jno. Lohmann, Jr., Edwardsville, Pa. Nicholas N. Lawery, Schenectady, N. Y. Henry Lampard, Montreal, Canada. H. G. Lavalle, Gouverneur, N. Y.

C. J. McCloskey, Jersey City, N. J. John F. Marr, Chillicothe, Ohio. F. H Mayo, Mulhall, Pa. F. L. Mills, Boston, Mass. Thomas W. Murphy, East Bradey, Pa. John R. Murray, Centreville, Tenn. W. B. Nethery, Toronto Junction, Ont.

Edward L. Page, Lancaster, Pa. J. H. Pratt, Birmingham, Ala.

A. V. Rand, Wolfville, N. S.

Aber Y. Smith, Clarksburg, W. Va. Clarence O. Snavely, Lebanon, Pa. Moses W. Somers, Boston, Mass. W. E. Smurl, Parsons, Pa. W. A. Sickel, Snow Shoe, Pa. W. Scallin, Mitchell, S. Dak.

Howard P. Thomas, Syracuse, N. Y. J. W. Thomas, Jr., Norfolk, Va.

W. H. Van Strander, Winsted, Conn.

Bertie Ward, Orange, N. J. H. A. Woodward, Plainfield, N. J. Frank M. Wayne, Rochester, N.Y.

Questions: Thirteenth Series.

BOTANY.

References: Gray's Structural and Systematic Botany, Bastin's Botany, or Culbreth's Pharmaceutic Botany.

141. Give the distinctive differences between endogenous and exogenous plants

142. What are laticiferous ducts and what is their function?

143. What is the cambium layer and what are its functions?

144. To what principle is the coloring of leaves due?

145. What is sclerenchymatous and what is parenchymatous tissue.

146. Explain the relations indicated by species, genus, natural order, division and class

147. Name all the plants of the natural order umbelliferræ which furnish official drugs or preparations, giving the botanical name, habitat, active constituents and part used.

149. Give the botanical names, habitat and part of the plants entering in any way into the composition of compound cathartic pills.

150. Give the names of the official drugs of the order of hydropyllaceæ.

Ergotinum Gallicum.—This is a mixture recommended warmly by Dr. Blaschko in the treatment of pulmonary hemorrhage; its composition is as follows:

	Grammes
Acid gallic	1 00
Ext. ergot	1.00
Aqua destill	25.00
Syrupi	25.00

Sig.: A teaspoonful every hour.

Student's Column.

Organic Materia Medica of the U. S. P.

[*Continued from Page 264.*]

Anisum. Anise; aniseed.

BOTANICAL NAME.....Pimpinella Anisum.
NATURAL ORDER.....Umbelliferæ.
HABITAT.....Scio, Egypt, Asia; cult. in Malta, Spain and Germany.
CONSTITUENTS.....Volatile and fixed oils, (3 and 3.38 per cent).
PROPERTIES.....Carminative, stimulant.
PART USED.....The fruit.
PREPARATION.....

Dose—Oil Cc. 0.30.

Anthemis. Chamomile; Roman or English Chamomile; Garden Chamomile; Low Chamomile; Camomile; Ground Apple; Whig Plant.

BOTANICAL NAME.....Anthemis nobilis.
NATURAL ORDER.....Compositæ.
HABITAT.....Southern and Western Europe, cult. in Germany, Great Britain, France and Belgium.
CONSTITUENTS.....Volatile oil, tannin, resin (5.25 per cent.), wax (.10 per cent.).
PROPERTIES.....Mild stimulant tonic.
PARTS USED.....The flower heads.

Dose—Infusion Cc. 60.00—120.00

Apocynum. Canadian Hemp; Black Indian Hemp; Bowman's Root; Indian Physic.

BOTANICAL NAME.....Apocynum Cannabiaum.
NATURAL ORDER.....Apocynaceæ.
HABITAT.....North America.
CONSTITUENTS.....Glucoside bodies (Apocynin, apocynein), tannin, gum, resin, starch, wax.
PROPERTIES.....Emetic, cathartic, and antiperiodic.
PART USED.....The root.
PREPARATION.....Fluid extract.

Dose—Fluid extract. Cc. 0.3—1.00 or 2.00.

Arnica Flores. Arnica Flowers; Leopard's bane; Mountain Arnica; Mountain Tobacco; Wolfsbane.

BOTANICAL NAME.....Arnica Montana.
NATURAL ORDER.....Compositæ.
HABITAT.....Europe, North America and Asia.
CONSTITUENTS.....Several resins, oil and volatile acid.
PROPERTIES.....Stimulant; externally sedative.
PARTS USED.....The flower heads.
PREPARATION.....Tincture.

Dose—Tincture Cc. 0.60—4.00.

Arnica Radix. Arnica Root.

BOTANICAL NAME.....Arnica Montana.
NATURAL ORDER.....Compositæ.
HABITAT.....Europe, North America and Asia.
CONSTITUENTS.....Several resins, volatile oil, inulin (10 per cent.).
PROPERTIES.....Stimulant; narcotic; diaphoretic externally sedative.
PART USED.....The rhizome and roots.
PREPARATIONS.....Extract; fluid extract and tincture.

Dose—Extract Cc. 0.20—0.30; **Fluid Extract** Cc. 0.60—2.00; **Tincture** Cc. 0.60—4.00.

Asafœtida. Asafetida; Devil's Dung; Food of the gods.

BOTANICAL NAME.....Ferula fœtida.
NATURAL ORDER.....Umbelliferæ.
HABITAT.....Persia, Afghanistan and the Punjaub; enters commerce by way of Bombay.
CONSTITUENTS.....Gum (20-30 per cent.), resin (45-70 per cent.) ferulaic acid.
PROPERTIES.....General and local stimulant; antispasmodic.
PART USED.....The gum resin.
PREPARATION.....Emulsion; pill of aloes and asafetida; pill of asafetida; tincture of asafetida.

Dose—Powder Gm. 0.20—1.00; **Emulsion** Cc. 16—32.

Asclepias. Pleurisy Root; Butterfly Weed; Wind Root; Silkweed; Tuber Root; White Root; Flux Root; Orange Swallow Wort.

BOTANICAL NAME.....Asclepias tuberosa.
NATURAL ORDER.....Asclepiadeæ.
HABITAT.....Canada and United States, south to Florida, and west to Texas and Southern Colorado.
CONSTITUENTS.....Starch, tannin, two resins, fixed oils, glucoside.
PROPERTIES.....Emetic, expectorant and anodyne.
PART USED.....The root.
PREPARATION.....Fluid extract.

Dose—Fluid Extract Cc. 1—4.

Aspidium. Male Fern; Male Shield Fern; Bear's Paw Root; Sweet Brake.

BOTANICAL NAME.....Dryopteris Filix-mas and Dryopteris marginalis.
NATURAL ORDER.....Filices.
HABITAT.....Canada and the United States.
CONSTITUENTS.....Oleoresin, filicic acid, tannin.
PROPERTIES.....Anthelmintic.
PART USED.....The rhizome.
PREPARATION.....Oleoresin.

Dose—Oleoresin Cc. 0.40—0.46.

Aspidosperma. Quebracho.

BOTANICAL NAME.....Aspidosperma Quebracho-blanco.
NATURAL ORDER.....Apocynaceæ.
HABITAT.....South America.
CONSTITUENTS.....Six alkaloids soluble in alcohol, ether and chloroform, viz.: aspidospermine, aspidospermatine, aspidosamine, quebrachine, quebrachamine, hypoquebrachine.
PROPERTIES.....Respiratory sedative; antispasmodic.
PART USED.....The bark.
PREPARATION.....Fluid extract.

Dose—Fluid Extract Cc. 1—4.

Aurantii Amari Cortex. Bitter Orange Peel.

BOTANICAL NAME.....Citrus vulgaris.
NATURAL ORDER.....Rutaceæ.
HABITAT.....Southern Europe, West India Islands, Southern Florida.
CONSTITUENTS.....Bitter principle (hesperidin), volatile oil, gum, albumen.
PROPERTIES.....Aromatic bitter tonic.
PART USED.....The rind of the fruit.
PREPARATIONS.....Fluid extract, tincture.

Dose—Fluid Extract Cc. 4; **Tincture** Gm. 4—8.

Aurantii Dulcis Cortex. Sweet Orange Peel.

BOTANICAL NAME.....Citrus Aurantium.
NATURAL ORDER.....Rutaceæ,
HABITAT.....Warm countries.
PROPERTIES.....Mild digestive stim. and flavoring.
PART USED.....The rind of the fresh fruit.
PREPARATIONS.....Syrup, tincture.

Dose—Tincture Cc. 4—8; **Syrup** *ad lib.*

(*To be Continued.*)

The Microchemical Determination of Iodine.—According to the *Journal de Pharmacie et de Chimie* Denigés adds a small quantity of the liquid to be tested, to potassic lye until a slightly alkaline reaction ensues. He then adds a drop of acetone, and follows with solution sodium hypochlorite drop by drop. When only traces of iodine are present, a whitish turbidity soon results, condensing into bright yellow small crystals of iodoform. Iodates are previously reduced by adding a trace of sodium-thiosulphate solution.

An Explosion.—At the Therapeutical Society of Paris M. Créquy called attention to the following accident, which he had had. As a dentifrice he had to dispense:

Potassium chlorate	5 grammes
Borax	10 grammes
Magnesia	10 grammes
Prepared chalk	10 grammes
Oil of peppermint	11 drops
Saccharin	.5 gramme

The pharmacist mixed the chlorate of potash and the saccharine together in a mortar of all things. He was saved the trouble of finishing the prescription, however, for a violent explosion resulted, and he was badly burnt. The great imprudence in rubbing violently together a 10 per cent. mixture of saccharin with potassium chlorate is self-evident, and has, unfortunately, been shown before by English chemists with the same inevitable result.—*British and Colonial Druggist.*

Business.

Under this head will be conducted a department on the promotion of the business interests of the retail druggists in all their aspects, including that of advertising.

Our readers are invited to offer suggestions, to submit specimens of advertisements and to send inquiries on any points in which they are interested.

Written for the American Druggist and Pharmaceutical Record.

Simple Simplicity.

THE BILLHEAD, THE BUSINESS CARD AND THE CIRCULAR.

BY NATH'L C. FOWLER, JR.

I can remember a billhead, a business card, and a circular without twice too much matter upon them, but I have forgotten when and where I saw these remarkable productions.

As about one hundred people out of one hundred say too much in their advertising, so do these people put too much into every class of printed matter they inflict upon the public.

It is presumed that the merchants send out printed matter because they want people to read it. If people won't read it there is no use in having it.

The business man reads it himself, and it reads well. He is familiar in the premises.

Because he reads it he thinks everybody else will.

Let that business man go into the seclusion of his back office, close the blinds, pull down the shades, sit himself down and look at himself in the darkness of his own surroundings, and ask himself if he reads other people's circulars and cards.

I present his answer as the strongest argument to my statement that nearly all printed matter is over-done, too long, too technical, and generally falls flat upon the public.

I will discuss the three principal articles of printed ware each by itself.

The billhead is not an advertisement, and has no right to take the place of an advertisement.

The billhead is simply a connection between the seller and the buyer, suggesting that the seller would like to have that part of the buyer's money due him.

There is no room on the billhead for an enumeration of all the things the seller keeps and does.

Use some general title which is supposed to cover the business.

Most concerns sell from a dozen to a thousand different articles.

It is as sensible to print them all upon the billhead as to print a dozen of them.

There is no objection to printing a specialty upon a billhead, but that is not essential.

Terms should be given, and any other information relative to the payment of the bill.

There is no excuse for printing anything other than these upon the billhead.

One-half the billheads are printed in fancy type, frequently so that the name cannot be spelled out, and very often the address appears in some Old English or script letter, so that the receiver does not know for a certainty what the address is.

In one-half of the billheads the State is left out, and as the majority of towns are duplicated in nearly every State, people outside of the State are not sure of the location of the town.

The name should be printed in plain type, because most bills are paid by checks, and it is quite essential that a check be made out properly.

The town and State should be set in equally as plain type, because most folks send remittances by mail, and the town and State are all important.

Script type should never be used on a billhead.

Plate No. 1 presents in reduced size an example of a conventional billhead, set as the majority of billheads are set.

Plate No. 2 presents the same billhead, set entirely in one series of type, the different sizes being used.

Smithville,.....189

M.....

Bought of **John Smith & Co.**

Dealer in Everything from Everywhere. Special attention given to all orders. Choice everything constantly on hand. Fine things for everybody.

44 SMITHVILLE AVE.

PLATE NO. 1.

It is always advisable to use in a billhead one series of type throughout. It makes a neater job. It is more artistic, because it is simple, and simplicity is true art. It is pleasing to the eye, the harmony is perfect, and it gives an always advisable distinctness to the firm's printing.

Smithville, N. Y._____

M_____

Bought of **JOHN SMITH & CO.,**

DISPENSING CHEMISTS,

Terms: 10 Days. 44 SMITH AVE.

PLATE NO. 2.

The ideas suggested for a billhead apply partially to a business card.

A series of type should be used throughout, and the firm name and address must be as distinct as possible

The business card admits of more printed matter.

The merchant is justified in adding his specialties to the business card, and printing upon it information calculated to present his business in its general entirety.

JOHN SMITH &. CO.,

APOTHECARIES

Prescriptions carefully compounded, Toilet Articles, Trusses, Patent Medicines, etc.

44 SMITH AVE., SMITHVILLE.

PLATE NO. 3.

Plate No. 3 presents a business card of the conventional style, no worse than a large proportion of the business cards now in circulation.

Plate No. 4 presents the same card reset in an effective way.

It will be noticed that in the first example all of the specialties are made prominent, while in the second example the general business is presented in large type, the specialties appearing in smaller type, which much improves the appearance of the card.

JOHN SMITH & CO.,

DRUGGISTS,

Prescription Department in charge of ALBERT B. DORR, Ph.G.

44 SMITH AVE., SMITHVILLE, N. Y.

PLATE NO. 4.

Circulars are without limit of style, size, and wording. In a subsequent article I will discuss these, and attempt to present examples of effective ones set in the extreme of simplicity and brevity, that the reader may absorb the entire argument at a glance.

Label for Petrolatum.

A. C. Searles, a well-known New York druggist, has adopted the following label for petrolatum:

LAWALL & SEARLES,
APOTHECARIES,
Ave. C, Cor. 8th St., N. Y.
PETROLATUM.
This article is the official Petroleum Ointment of the U. S. P. It is superior, in all respects, to so-called similar substances sold under various trade names.

It is the opinion of a few in the trade that the design might be improved still further by substituting the word "Jelly" for ointment. On the whole the idea is a good one.

At the Soda Counter.

"It is interesting to see how differently people drink," said a Portland soda counter boy. "Some people never lift their eyes over the rim of their glass; others look all around the store, and read every label. I used to have a curious customer. A little nervous man who went up and down on his toes when he drank; every time he raised the glass to sip he went up and then down again, and I always had to turn my head to avoid his seeing me smile. It's curious, too, about colors. Now blondes usually prefer the colored fruit juices, while dark complexioned people take the plain varieties. And another thing I have noticed is that anyone in a hurry will always drink the glass dry, partly from nervousness, I suppose. Yes, we see some funny sights, but one of the best was when a young man-about-town came hustling in one evening with his best girl, ordered two lemon ices, and putting his hand in his pocket found he had left his change in his other trousers. He turned red, then white, and looked at me appealingly. I tumbled, and said, 'that's all right, old man,' and the girl looked conveniently the other way. He thanked me the next day."

New York.

O. G. Kalish of the Kalish pharmacy, Fourth avenue and 23d street, has adopted several striking methods of attracting attention to his model establishment. Chief of these is a glass instrument of intricate construction, which is exposed in the show windows and designed to illustrate the circulation of the blood. It attracts a great deal of attention and many pharmacists have made inquiries as to where duplicates may be obtained, but Mr. Kalish is keeping this a secret for the present as he does not wish the novelty of his instrument interfered with. As any philosophical instrument maker is likely to keep the instrument in stock or should be able to procure it, there is a likelihood of it becoming common. Another window attraction employed by Mr. Kalish consists of a large glass jar containing fluids of different specific gravities. The lowest strata is composed of a layer of mercury, and following this are successive layers of glycerin, water, oil and alcohol, colored to make an attractive exhibit.

Rumors are afloat that it is Geo. Seabury's intention to visit Europe in the Fall. When approached on the subject Mr. Seabury would neither deny nor affirm the accuracy of the rumor. He said, however, that it was unlikely that he would be able to attend the Asheville meeting of the A. P. A., as he intended visiting Maine about the time the association proposed to meet. Mr. Seabury admits that he has never been a success as a mariner. "Why," he said, "the mere mention of a trip to Europe makes me seasick. No, solid earth is joy sufficient for me. The odor of marine ropes or tar invariably suggests everything else than poetic emotions, and past experiences crossing the deep blue sea always awaken sad recollections." It is quite probable that Mr. Seabury will make the trip. There is more than mere hearsay behind the present rumor.

The action brought by the New York and Cuba Mail Steamship Company against McKesson & Robbins, to recover a fine imposed in 1887, by Cuban customs authorities on the *Cienfuegos* for having on board opium which did not appear on the manifest, was stopped on the 6th inst. by consent of the parties. It was agreed that each side shall pay one half of the fine, which with interest, amounts to more than $8,000. The evidence taken during the day and a half when the case was on trial showed a smuggling conspiracy between some employees of McKesson & Robbins and of the steamship company, but absolved the firm, it being shown that they sold the opium for cash to a man named Fernandez before it was removed from the warehouse.

A movement is under way in local drug and chemical circles to organize a club to promote a fraternal feeling, and to have central headquarters where members could dine and meet each other daily. The matter has been under discussion for several days, and about 25 representatives of various houses in the trade have signified a desire to join such an organization. The arrangements are in the hands of Messrs. R. W. Phair and W. W. Dixon. A meeting has been called for Saturday this week, after business hours, at the Astor House, to take definite action.

J. C. Smith of Smith & LaRocque, Plattsburg, has been recuperating in the vicinity of New York City for the past ten days. During the winter Mr. Smith had a severe attack of grippe, and has suffered much since from its sequelæ. Mr. Smith has divided his vacation between driving and deep-sea fishing, and will carry back to his fresh-water home the tan and tales of an old tar.

J. Rothenberg & Co. have opened all three of their stores at Long Branch and anticipate a very profitable season. They have done a very good business during the winter at the village store and also at the West End store, which was kept open all winter. Mr. Rothenberg will, as usual, be ably assisted by James C. Seiler who has been with Mr. Rothenberg for many years.

John J. Skelly, who was with Hegeman for many years, has a store at 309 East Fourteenth street, and can now have a little more leisure as his son was among the graduates at the College of Pharmacy this spring and shows a marked aptitude for the business.

Among the visitors in New York the drug market during the past week we have noticed J. E. Eliel of the Lyman, Eliel Co., Minneapolis, and Horace Burroughs of the Burroughs Bros.' Manufacturing Co., Baltimore.

Henry Schweitzer, for many years on Ninth avenue, between Nineteenth and Twentieth streets, who has been out of business for the last ten years, will open a magnificent store on Ninth avenue, between 30th and 31st streets.

Smith Ely Jelliffe, M.D., has been appointed to succeed the late O. G. Harrison as instructor in materia medica and botany in the College of Pharmacy of the City of New York.

Dr. R. A. Davis, formerly of 838 Eighth avenue, is to open a store at the corner of Amsterdam avenue and Twenty-sixth street, where he is fitting up a very handsome place.

W. C. Fiske, M.D., has opened a very large and handsomely fitted up store at Eighth avenue corner of Forty-seventh street.

J. F. Cummerford has opened an elegant new branch store at Fifty-ninth street and Eighth avenue.

Geo. E. Tappenden has entirely recovered from the slight ailment of his foot which has confined him to his room for some time.

Frederick K. James of 44th street and Eighth avenue sailed for Europe last week and will make an extended tour of the continent.

Henry Allen, the successful dealer in and manufacturer of druggists' glassware, sailed for Europe on the Umbria last Saturday.

James W. Tufts & Co. have just sold to Hiram Ricker & Son a beautiful onyx fountain for the latter's store in New York City.

Sam Rosenstock, formerly of 41st street and Seventh avenue, opened up a very nice store at Broome and Garrick streets.

Leopold Freiberger has refitted his store at 1156 Second avenue in the very latest and most attractive style.

Geo. A. Luria, formerly of 1 Division street, New York, has just opened a store at 482 Seventh avenue, Brooklyn.

M. R. Mandelbaum took a little journey down along the Jersey coast the first of this week for Tilden & Co.

Jos. Jacobs, the widely-known Atlanta pharmacist, was in town last week.

Boston.

An important meeting of the Malden Druggists' Association was held recently, which was attended, by invitation of this association, by druggists from Everett, Medford, Stoneham, Cambridge and East Boston. President W. B. Southworth was in the chair, and Secretary C. A. Charles occupied his accustomed place. The absorbing topic was the action of Malden's aldermen in refusing to grant any sixth-class licenses and subsequently ordering all druggists to remove their supply of liquors so that for a time prescriptions for the ardent were not filled. The association was fortunate in securing the attendance of a gentleman who has made a study of the Massachusetts liquor laws in so far as they relate to the drug trade. This person was none other than President William W. Bartlet of the Massachusetts Druggists' Alliance, and he made a lengthy address in which he explained the intricacies of these laws. The action taken as a result of this meeting is not to be made public at present, but from the information at hand it can be safely assumed that Mr. Bartlet suggested some way out of the dilemma in which the Malden drug trade found itself.

The puritanical mayor of Everett has decided to enforce the "blue laws," and the sale of cigars, candy, etc., upon the Sabbath has been strictly tabooed. The druggists, as a consequence of this order, closed their stores upon Saturday night and remained closed until Monday morning. This was more than the mayor bargained for, and now he is endeavoring to "bluff" the druggists by stating that if these tactics are persisted in, another drug store will be opened within two weeks, where medicines will be put up on Sunday. The outcome of this contest is awaited with interest, but it is presumably a spasmodic action upon the part of the authorities, which will soon die out from lack of public interest.

The Harry B. Stull who recently suicided in Buffalo, N. Y., is the same person who gained so much notoriety last year by marrying a "1492" actress in a sudden and sensational manner. Subsequently he went to South Dakota for the purpose of securing a divorce, but afterward abandoned this plan, returned East, and lived with his wife. Mrs. Stull died about six weeks before Mr. Stull ended his life, and her death is said to have unbalanced his mind. For ten years prior to his marriage he had made Boston his home, and was for a long time a clerk for John D. Knowlton on Washington street. The funeral and burial took place at Waynesboro, Pa., where his parents have their home.

C. I. Hood of Lowell, and of sarsaparilla fame—unlike most retail druggists—is the proprietor of a fancy stock farm. Fire recently visited one of the barns on this farm, and before it was extinguished 26 of the finest Jersey cattle procurable in this country had been destroyed. The loss was $20,000; fully insured. Since the fire Mr. Hood has purchased 20 head of blooded Jersey cattle in the West.

Kelley & Durkee have secured temporary quarters at 346 Boylston street, where they will be located until their new store at 392 Boylston street is ready for occupancy. C. H. Bangs is at work upon elaborate mahogany fixtures for this new establishment.

A proposition to hold a medical and pharmaceutical exhibition in this city next year has been broached by the publisher of the *New England Druggist*, who has heretofore been very successful in such affairs.

C. H. Woodman, Haverhill, has made an assignment.

President Doliber and Vice-President Cheney of the Doliber-Goodale Co., were in Philadelphia recently upon business connected with their successful specialty.

Charles A. West has returned from his trip to New York and Washington, while in the latter city he was looking up matters connected with tariff legislation.

The Massachusetts legislature is inclined to perpetuate the adornment of buildings, fences, etc., by patent medicine "ads" for at least a year longer, judging by the recent rejection of a bill aimed to prohibit this adornment in the future.

Maine.

W. B. Boothby, Westbrook, has a new Low Art Tile fountain.

The store of Haley P. Thompson, Lisbon, was burglarized recently; $47 in cash was secured by the thieves.

C. H. Guppy & Co. of Portland have placed an order with James W. Tufts & Co. for a very large and beautiful fountain; it is to be over 17 feet long.

The Freeman-Rice Medicine Company, Gray, manufacturers of patent medicines, is in insolvency. George F. McQuillan and Fred. V. Chase are assignees.

The recent conflagration at Norway seriously interfered with the business of two drug stores in that town. A. O. Noyes' store and dwelling were destroyed; loss, $6,000; insured for $4,000. The $5,000 stock of F. P. Stone was partly destroyed; insurance, $4,000.

The suit of Henry Reney of Biddeford for divorce, in which he charges his wife with attempting to poison him, has been continued until the next term of the Supreme Court. Mrs. Reney has been granted $5 a week, pending the trial, and $100 to cover the cost of her defense.

Georgia Jottings.

Tyner's soda fountain is doing a grand business in Atlanta.

The Elkin Watson Drug Co., Atlanta, have just put in an elegant Lippincott onyx fountain. They will do a good business.

The Aragon Pharmacy has moved a block higher up Peachtree street, Atlanta, to a point immediately opposite the elegant Aragon hotel.

Jacobs' large retail store in the Venable building in Atlanta is being rapidly put into shape. It will be a most elegant establishment when finished.

Dr. Daniel will open a new drug and seed business in Macon, under the title of the Daniel Drug Co. Dr. Taylor has purchased the full control of the firm of Taylor and Daniel and will continue business at his well-known stand.

Americus, Ga., probably contains the handsomest soda fountains for the size of the city of any place in the United States. Dr. Mun's fountain would prove an attraction in any of our very large cities. Dr. Davenport's fountain is also very handsome.

The next meeting of the Georgia Pharmaceutical Association will be at Savannah, Georgia, on May 22, 1895. It promises to be a most enjoyable occasion. Savannah presenting as it does so many rare and unusual forms of entertainment to the up-country people, Drs. Parsons and Kieffer will see that the occasion is a memorable one. Dr. Kieffer is local secretary.

Dr. J. W. Goodwyn, of Macon, after holding the chairmanship of the Georgia Board of Pharmacy for a number of years resigned it at the last meeting of the board. Dr. S. B. Durban, of Augusta, was elected chairman. Both are admirable gentlemen. Dr. Goodwyn has never had any opposition to the chairmanship, and the board gave him up with regret. He still remains a member. He can always have anything he wishes, which it is in the power of the pharmacists of Georgia to give.

Detroit.

Frederick Stearns will spend the summer in England.

H. E. Girard, Grand Rapids, has sold his drug business to J. A. Gibbs & Co., who will continue it.

The Clover Leaf Drug Store, 297 First street, Detroit, has been removed to 1526 Woodward avenue.

S. F. Frizelle has not yet recovered from a severe illness. C. C. Curtiss is conducting the business for him.

O. E. Smith, Detroit, has purchased the drug stock of Charles Moreland, 749 Grand River avenue.

H. D. Luce, son of ex-Governor Luce, has sold his drug business at Lansing to A. O. Bauer & Co. of Grand Rapids.

H. H. Packard of Sheboygan has sold his drug store to Sangster & Gahan. The business will be continued at the old location.

The retail druggists of Windsor, Ont., recently received a notice from the wholesale dealers to at once advance the price of quinine 20 per cent.

The Keech Block at Centreville was burned recently. Bryant Weed's drug store was destroyed. Loss, $3,400· partially insured.

The drug store corner of Myrtle and Twelfth streets Detroit, formerly owned by J. S. Bagley, is now conducted by John Ward.

T. H. Hinchman & Sons, Detroit, who were burned out several months ago, will be back in their old quarters in about three weeks.

De Smith & Co, Detroit, have started a well appointed drug store at 73 Grand River avenue. Dr. M. E. Knapp is a partner and has an office in the store.

J. G. Hackney, Detroit, has removed his stock to 91 Grand River avenue, while his old quarters are being renovated.

Otto Paul Meyer, son of the millionaire St. Louis druggist, was married last week to Miss Alice McGowan, a popular society lady of Grand Rapids.

McClellan C. Pendleton, Detroit, has purchased the interests of his partner, Mr. Bachmeyer, in their drug business at 569 Fourteenth avenue, and will continue it.

The drug store of W. H. Burke & Co., 291 Woodward avenue, Detroit, was entered by a rear window recently and robbed of all the money in the cash drawer. Nothing else was touched.

Frederick Klig was recently convicted at Detroit for robbing the drug store of C. K. Trombley, but was let off on suspended sentence. He was last week sentenced to two years in prison for being concerned in another misdemeanor.

THE WEST VIRGINIA BOARD OF PHARMACY will hold its annual meeting at Berkley Springs, West Virginia, on July 10. For further information address the secretary, Jno. G. McLain, Wheeling, or the president, O. P. Sydenstricker, Lewisburg.

Random Notes.

The mayor of Falkton, S. D., is a local apothecary named M. J. Marvin.

The drug store of H. P. Thompson was burglarized at Lisbon, Me., recently.

The St. Louis College of Pharmacy has for its president the mayor of the city—Mayor Walbridge.

Fire damaged a large block of houses at Greenfield, Ind., on May 25, among which was the store of C. T. Grove.

Burglars captured about $1,000 in cash and merchandise from Leslie Williams' store at Clinton, Ia., not long since.

Chas. H. Griswold's store at Main and Trumbell streets, Hartford, Conn., was damaged to the extent of $1,000 by fire.

A local branch of the Interstate League has been formed in Wheeling, W. Va. The officers are Joseph A. Bell, president; Wm. Hogue, secretary. The organization is based upon the old local association.

The Texas Drug Company of Dallas, has been organized with a capital of $100,000. Incorporators: J. L. Lovejoy, W. J. Worsham, Yancy Bartholomew, Guy Sumpter, E. J. Fry, H. H. Adams. H. P. McKnight.

A rumor has been in circulation for some time to the effect that the Moffitt-West Drug Company and the Meyer Bros. Drug Company were about to consolidate, but members of both firms deny that they have any such intention.

The New England Drug Clerks' Exchange was tendered a dinner on May 22 at William O. Blanding's residence at Rumstick Neck. Mr. Blanding is president of the body, and invited a number of New England druggists to the dinner.

The bill providing that licenses of the sixth class shall be granted only to registered pharmacists having a certificate from the board of registration in pharmacy, has been adopted by both branches of the legislature of Massachusetts.

The St. Louis Drug Clerks' Society has elected the following officers for the ensuing year: President, S. E. Barber; first vice-president, George Waller, Jr.; second vice-president, Max J. Schneider; treasurer, Frank C. Garthoffner; secretary, Otto P. Mack.

The Foster-Milburn Company of Buffalo has been organized to manufacture proprietary medicines with a capital stock of $150,000; and directors: Orren E. Foster, James Foster, Herbert J. Brain and Harry T. Vars of Buffalo, and Thomas Millburn, of Toronto.

A. Cressy Morrison of Milwaukee, Wis., who is well known in the wholesale and retail drug trade as chairman of the Committee on Fraternal Relations of the N. W. D. A., has an interesting article on the progress of road building in the June number of *Good Roads*. Mr. Morrison is an enthusiastic wheelman and is chief consul of the Wisconsin Division of the L. A. W.

The village of New London, Pa., has a sensation over the strange disappearance and absence of Samuel Martin, a young druggist and son of Ellwood Martin, of that place. He recently graduated as a pharmacist in Philadelphia. On April 25 he left his home with $25 in his pocket for Harrisburg to appear before the State board of examiners. He took the cars at Kelton Station, on the Philadelphia and Baltimore Railroad, which point is the last tidings his people have of him. The State board writes that he never appeared before them, and though efforts have been made to locate him they have proved futile.

Richmond Notes.

Mr. Christian is now with P. M. Slaughter, 25th and Venable.

Polk Miller, in his new profession, is meeting with merited success, as the crowded house testified on his appearance at the Richmond theater on the 30th ult.

The interior of W. H. Scott's store has been recently painted. And, by the way, this store probably fills more prescriptions than any other in Virginia. The file number is now 175,000.

The University College of Medicine, having met with so much success the first year, is obliged to add an addition to its buildings at 12th and Clay streets. This year all departments will be improved upon and at the beginning of the session on September 18, a finished course is promised.

NEW JERSEY BOARD OF PHARMACY.—At the meeting in Camden, April 19, sixty-two (62) were registered on diploma, and fourteen examined. The following passed: Wm. F. Weber, Milville; Arthur S. Wilcox, Philadelphia, Pa.; Henry J. Fleischhauer, Plainfield; Howard Baer, Salem; F. Wm. Speckman, Newark, and Owen F. Garrigan, Newark. At the meeting April 20 in Jersey City eight were registered and a class of 27 examined. Seven passed as follows: Leo Kaulfuss, Brooklyn; David Loeser, Newark; Benj. Bethel, Paterson; H. W. Rachel, New York City; Adolph G. Trenpel, Brooklyn; John G. Kimpel, Jersey City Heights, and C. D. Kay, Jersey City. At the Asbury Park meeting May 22d fourteen were registered on diploma.

FLORIDA ASSOCIATION.—At the last meeting Tallahassee was chosen as the place for the next annual meeting, and the officers elected for the ensuing year were: F. P. McElroy of Dade City, president; S. B. Leonardi of Tampa, first vice-president; J. M. Dixon of Titusville, second vice-president; E. Berger of Tampa, third vice-president; R. J. Martinez of Jacksonville, secretary, and Thos. Clarke of Jacksonville, treasurer.

Trade Notes.

Sticky fly-paper is in order now, and "Tanglefoot" is a popular brand. See the advertisement on pink page for prices.

The Albany College of Pharmacy have an announcement in this issue which should be read by every intending student of pharmacy in the State of New York. The annual catalogue containing full particulars regarding fees, etc., can be had on application to A. B. Huested, M.D., secretary, 144 State street, Albany.

The attention of our readers is directed to the announcement of the Philadelphia College of Pharmacy which appears in this issue. The next term of the college begins October 1, and those who contemplate matriculating will do well to write at once for a catalogue. Address the actuary of the college, Thos. S. Wiegand, 145 N. 10th street.

It will be to the advantage of every one interested to write to Chas R. Doane, 22 Meserole street, Brooklyn, for price lists and samples of the seidlitz powders put up by the Doane Seidlitz Powder Machine. The powders are composed of the purest chemicals and are accurate in weight and warranted. Large hospitals like the Roosevelt and Presbyterian invariably use the Doane Seidlitz Powder, as they are aware of their reliability and medicinal value.

The Joel A. Connolly Plaster Co. of Boston, Mass., are introducing a profitable and worthy specialty in medicated plasters. This is Connolly's croton oil plaster, an article which is being extensively recommended by physicians as an effective counter irritant and for the cure of bronchial troubles, incipient sore throats, and laryngeal affections, as well as the numerous other maladies amenable to treatment by medicated plasters. To introduce the plaster the Joel A. Connolly Plaster Co. offer to send samples free to druggists. Write your request on a postal card and mention THE AMERICAN DRUGGIST.

The College of Pharmacy of the City of New York is now ensconced in its new building on West 68th street, where unusual facilities have been provided for imparting a knowledge of pharmacy and the allied sciences to students. It may safely be said that the New York College of Pharmacy is unsurpassed by any similar institution in teaching facilities and all that goes to provide the pharmaceutical student with a thorough knowledge of his profession. As the session of '94–'95 promises to be unusually well attended, it is advisable for intending students to make application for seats without delay. Full information regarding matriculation and lecture fees can be had upon application to the secretary, J. Niven Hegeman, 115–119 West 68th street.

A Profitable Line for Druggists.

It is not generally known among the trade that a large business is done by some druggists in selling old postage stamps to collectors. We know of many firms doing a flourishing business in this line, selling large quantities of stamps to collectors each month.

The Standard Stamp Co., No. 4 Nicholson place, St. Louis, Mo., sends out consignments of stamps to reliable druggists in every city of the United States, and it would pay any who have good stands, especially near a school or college, to handle these goods. There is no expense in giving this a trial as the firm, sends out these consignments on liberal commissions.

A Famous Steamboat Line.

The Providence Line between New York and Boston, Providence, Worcester and all Eastern Points is again open for business, having resumed its passenger service for season of 1894 on June the 4th from its magnificent new pier No. 36, North River, one block above Canal street and 3 blocks above Desbrosses street ferry. New Pier 36 is one of the handsomest piers in the city, having been greatly enlarged and improved during the past winter to accommodate the Providence Line. It has a two-story front on the street 229 feet long and the length of the pier is 793 feet.

The Providence Line is one of the oldest and most famous of Sound Lines. Its route combines the longest water trip and the shortest rail ride, insuring full night's rest with early arrival at destination. Its steamers, "Connecticut" and "Massachusetts," are among the handsomest vessels afloat. In beauty and convenience of appointments they are unsurpassed. A first class orchestra gives concerts in the grand saloon during the trip and the dining room of these steamers on the main deck with windows open to the outer air insure a delightful cool and airy meal, which the experience of travelers has taught them is almost invariably perfectly cooked and served. These steamers leave New Pier 36, North River, at 5.30 P.M. daily except Sunday.

Review of the Wholesale Market.

NEW YORK, June 13, 1894.

It should be understood that the prices quoted in this report are strictly those current in the wholesale market, and that higher prices are paid for retail lots. The quality of goods frequently necessitates a wide range of prices.

The progress of the month brings no improvement in the outlet for goods in any of the various departments, the movement of stock being reported as considerably below the average of previous years for this season. The absence of important demand does not, however, cause any freer offerings or suggest any material price concessions, though buyers may be said to have the advantage when desirous of making stock additions. The opium market is in a demoralized condition, and quotations for the time are nominal. Ergot is weak and lower owing to competition. Ipecac is easier. Salicylate of soda has declined. Jalap is firmer. Norwegian cod liver oil is strengthening at primary sources, though nominally unchanged in this market. Manaca root has advanced.

ADVANCED.	DECLINED.
Ammonium carbonate (American).	Opium
Sal ammoniac.	Trieste cuttle bone.
Divi divi.	Oil lemon.
Gum kino.	American saffron.
Quince seed.	Flake naphthaline.
Manaca root.	Celery seed.
	Potassium chlorate.
	Sodium salicylate.

ALCOHOL is maintained by the Trust managers at $2 18 @ $2.22 less the usual rebate. Competition from outside sources appears to be inconsequential, and the bulk of business is yet controlled by the Trust.

BALSAM COPAIBA has been inquired for, and among other transactions we note sales of 5 bbls. Para at a trifle below 35c.

BALSAM FIR, Canada, is sought for only in limited quantities, and values are merely nominal, with no special variation from recent quotations. New crop to arrive is offering at $2.25. We quote the range at $2.75 @ $2.80.

BALSAM PERU continues quiet, but prices are maintained with a fair show of firmness at the range of $1.85 @ $1.90.

BARKS.—Buckthorn is jobbing fairly within the range of 7 @ 8c. Sassafras finds steady sale at the previous prices. Soap finds a steady consuming outlet at the former range of 3¾ @ 4c.

BUCHU LEAVES, short, are finding sale in small lots at 8 @ 9c. for common to ordinary, and 12 @ 14c. for prime to choice green.

CACAO BUTTER is easier and we are reported sales of some 2,000 lbs., foreign bulk, at 31½c.

CASTOR OIL develops no new feature of interest and the market is dull, purchases being made only as immediate want ssuggest. The nominal prices are 14½ @ 15c. for bbls. and 15 @ 15½c. for cases.

COD LIVER OIL, Norwegian, is slightly firmer at primary sources, and the holders here refuse to shade $26. The impression is gaining ground in the trade that higher prices will prevail in the fall, the short crop and inferior qualities of the oil this season being referred to as furnishing grounds for this belief.

CUBEB BERRIES are in fair jobbing request at the current range of 16 @ 20c. for XX and 14 @ 15c. for ordinary. Powdered is held at 20 @ 30c.

CUTTLE BONE, Trieste, owing to active competition, has declined to the point of 8½ @ 8¾c., which is stated to be below the cost to import, and the lowest price yet reached in the history of the trade. Higher prices are probable later on.

DAMIANA LEAVES are offered freely within the range of 13 @ 14c. and we are reported sales of some 500 lbs. at the inside figure.

ERGOT continues very dull. German (Russian) is easier with 21 @ 23c. quoted; the outside figure for desirable grades. Spanish is steady at 25 @ 27c.

GUARANA is freely inquired for, but buyers' ideas are yet below the level of holders and the distribution is restricted; in consequence, we quote the range at 90c. @ $1.

LYCOPODIUM is not meeting with the usual inquiry of the season, and values are maintained at the previous range of 53 @ 56c.

MANNA, small flake, is tending higher in sympathy with prices at primary sources; 31c. is now an inside price, and at this figure only limited quantities can be obtained.

MENTHOL is scarce, and $5 is the lowest open quotation; Cocking's is held at $5.25.

OPIUM is tending steadily downward, and the market is dull and depressed with every indication pointing to lower prices as the season advances. Referring to the situation in Smyrna the correspondent of the London *Chemist and Druggist* at that point expresses the opinion that the next crop will be one of great abundance, and says he looks for a total output of 8,000 cases if the weather continues favorable. The conclusion to be drawn from this is a summer of low prices for opium and its derivatives. In this market buyers are pursuing the policy of covering immediate wants only. Single cases are quoted $1.90, and sales have been made at even a lower range. Jobbing parcels are offered at $1.95 @ $2, and powdered is quoted $2.80 @ $2.85.

QUININE remains quiet but firm with no special variation from previous prices. Foreign brands from outside hands are held at 22½ @ 23½c. as to brand and quantity. Manufacturers continue to maintain their contract price of 25c.

SAFFRON, American (Mexican), continues weak and unsettled, with 30c. quoted nominal for bales; new crop for June shipment is offered at 20c.

SENNA, Alexandria, continues in good jobbing demand; sales are reported of 2,800 lbs. garbled and sifted, but the price was not disclosed.

TONKA BEANS, Angostura, are jobbing fairly within the range of $2 @ $2.15 according to quantity and quality.

ESSENTIAL OILS.

ANISE continues to offer in limited quantities at $1.50 @ $1.55 though some holders are quoting $1.60 and even higher.

BAY is jobbing slowly within the range of $3 50 @ $4. A communication bearing upon the U. S. P. requirements for this oil with reference to the statements of some New York essential oil dealers will be found elsewhere in this issue. The article emanates from the well-known firm of Fritzsche Bros. and should command the careful attention of all in the trade.

CITRONELLA is jobbing quite freely with native quoted 25 @ 28c.

CLOVE is dull and the market retains an easy appearance upon the basis of 50 @ 53c.

LEMON is seeking sale at $1.10 @ $1.20 for strictly prime brands; good ordinary quality is offered at 90c. to $1, and inferior grades down to 80c.

PENNYROYAL is somewhat neglected, though with the small receipts the market is maintained at $1.10 @ $1.20.

PEPPERMINT, HGH, offers in a limited way at $2.85, but $3 is quoted regular. Bulk is held at $2.30 @ $2.60 as to quality.

WINTERGREEN is quiet, but there is no urgency to realize at $1.40 @ $1.50.

DYESTUFFS.

CUTCH is without change either as regards demand or prices. Small sales are reported at 5⅝ @ 6c. for prime quality bales, 6 @ 6½c. for block and 8½ @ 9c. for MN slab.

DIVI DIVI has undergone a material advance owing to scarcity; we quote the range at $70 @ $75.

GAMBIER remains quiet and without important changes. From wharf 3⅞c. is generally asked; steamer and sail goods ex-store are held at 4 @ 4¼c.

MADDER remains quiet but firm, with the supplies light.

NUTGALLS, Blue Aleppo, are quoted at the range of 13 @ 14c. as to quantity.

SUMAC, Sicily, is easier with $67.50 @ $70 now quoted as to brand and quantity.

CHEMICALS.

ACETATE OF LIME, Gray, is in exceptionally good demand and manufacturers are reported unable to fill orders on hand, being in many instances over sold.

ALUM is held steadily and a fair distributive movement is reported; lump realizes $1.75 and ground $1.80 @ $1.85.

AMMONIUM CARBONATE, Domestic is in very light supply and values are hardening with 8½c. quoted inside.

ARSENIC, White, continues in fair steady inquiry, with the current sales at the range of 3⅝ @ 3⅞c. as to brand.

BLEACHING POWDER does not improve either as regards price or demand. Sales of some 50 casks are reported at $2.20.

BLUE VITRIOL is firm at 3¾ @ 4c. with a moderate trade reported at this range.

CARBOLIC ACID continues dull and inquiry is limited to small jobbing lots. Crystals in drums are quoted 12½ @ 13c. and bottles 19 @ 21c.

CHLORATE OF POTASH is easier and sales of German have recently been made down to 33¼c. though the nominal quotation remains 13½c. English is held at nominally 13¾c. for crystals and 14c. for powdered.

CREAM TARTAR continues in steady fair request with makers quoting the uniform rate of 17 @ 17½c. for crystals and 17½ @ 18c. for powdered.

NITRATE OF SODA is in moderate demand and the market is steady at $2.25 @ $2 30.

OXALIC ACID remains quiet at 6¼ @ 6¾c. for German as to quantity.

QUICKSILVER meets with fair attention and the market is well sustained at the range of 49 @ 50c. as to quantity.

SAL AMMONIAC, German, white grain, is advancing at primary sources, the import cost now being reported as the equivalent of 7½c. Purchases here can be made at 6⅞ @ 7c., though an advance is looked for.

SODIUM SALICYLATE has been reduced 10c. per lb., the quotation for bulk now being $1.10 @ $1.15.

TARTARIC ACID continues to find moderate inquiry at the previous range with numerous jobbing sales at 21½c. for crystals and 22 @ 22½c. for powdered as to quality and quantity.

GUMS.

ALOES, Curacao, have been inquired for to some extent of late, but there is no stotck in first hands and jobbers require 3 @ 3¼c. which is slightly above the idea of buyers, who bid 2¾c.

ASAFETIDA is in better supply and the market has declined a trifle in consequence, 22½c. being now quoted as acceptable for prime grades.

ARABIC, sorts, are in better demand and the tone of the market is stronger, 10½ @ 11c. being generally required.

CAMPHOR, Japanese, has sold freely in the interval at full 40c. The stock is narrowing down to close limits without, however, causing any appreciation in values. Forward delivery goods, it is said, can be purchased at materially lower figures.

CHICLE is held with increosed firmness though no further change in prices is reported. We quote the range at 26 to 27c.

GAMBOGE, gedda, guaiac, mastic, myrrh and olibadanum are all quiet though without quotable change in value.

KINO has further advanced the principal holders now requiring $1.40 for limited quantities.

SENEGAL continues quite but values are well sustained upon the basis of 9 @ 9½c. for sorts and 12 @ 45c. for picked.

SHELLAC continues very dull and prices are nominally unchanged.

TRAGACANTH is without important change. The market is very dull and prices rather favor buyers.

ROOTS.

ACONITE is finding sale in a jobbing way upon the basis of 11½ @ 12c.

ALKANET is held at 6¼ @ 7c. with small sales within the range.

DANDELION, German, meets with about the usual inquiry, and we are reported sales of some 1,000 lbs. at 7½c.

GOLDEN SEAL continues very slow of sale and some holders are showing a disposition to realize at a concession. The general asking price is 20½ @ 21c. though bids of 20c. and possibly a fraction less would be entertained if firmly pressed.

BLACK COHOSH is in steady moderate request and among other transactions we notice sales of 500 lbs. at 3½c.

IPECAC continues held at $1.10 @ $1.20 as to quality.

JALAP is meeting with more inquiry, but buyers' ideas are still below those of holders, the former offering 16 @ 17c. and the latter quoting 19 @ 20c.

MANACA ROOT is very scarce, and for the small quantity in stock $1.50 is asked.

RHUBARB has been inquired for to a moderate extent during the interval and prices are fairly well sustained at previous range of, say, 20 @ 25c. Ofmedium grade root we are reported a sale of 2,500 lbs. at 25c.

SARSAPARILLA, Mexican, is in demand and scarce with 9½c. quoted firm. Honduras has sold to the extent of some 32 bales on private terms.

SENEGA is quiet, but prices are without quotable change; holders ask 38½ @ 40c.

SEEDS.

ANISE, Italian, is finding sale in a small way at 8½ @ 10c.

CANARY continues quiet without, however, any quotable change in price.

CELERY is meeting with more inquiry, and we are reported a sale of 10 bags at 15c. Holders are indifferent sellers in the anticipation of an early appreciation in values.

CORIANDER is quiet, small parcels finding sale at the quoted range of 8¾ @ 9c. Sales of Mogador to the extent of 500 lbs. to arrive at 8c. are reported.

MUSTARD is quiet though without special change in price. California yellow held at 3⅞c. and brown 3⅝ @ 3¾c.

QUINCE is scarce and held at 40c. for German; cleaned Russian 35c. and natural Russian 35c. and 25c. During the week sales have been made of some 500 lbs. of German and cleaned at 35c.